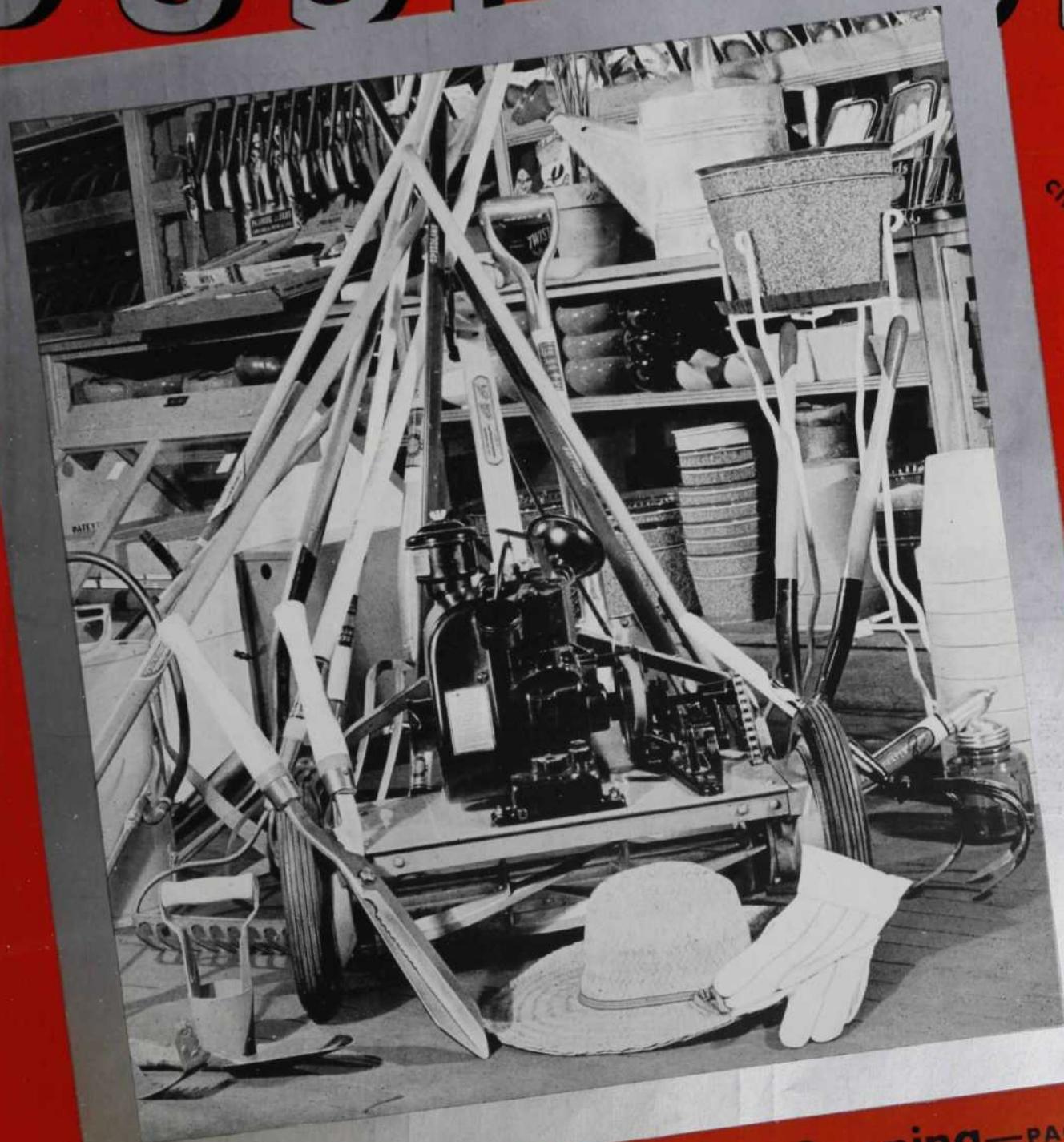


NATION'S BUSINESS

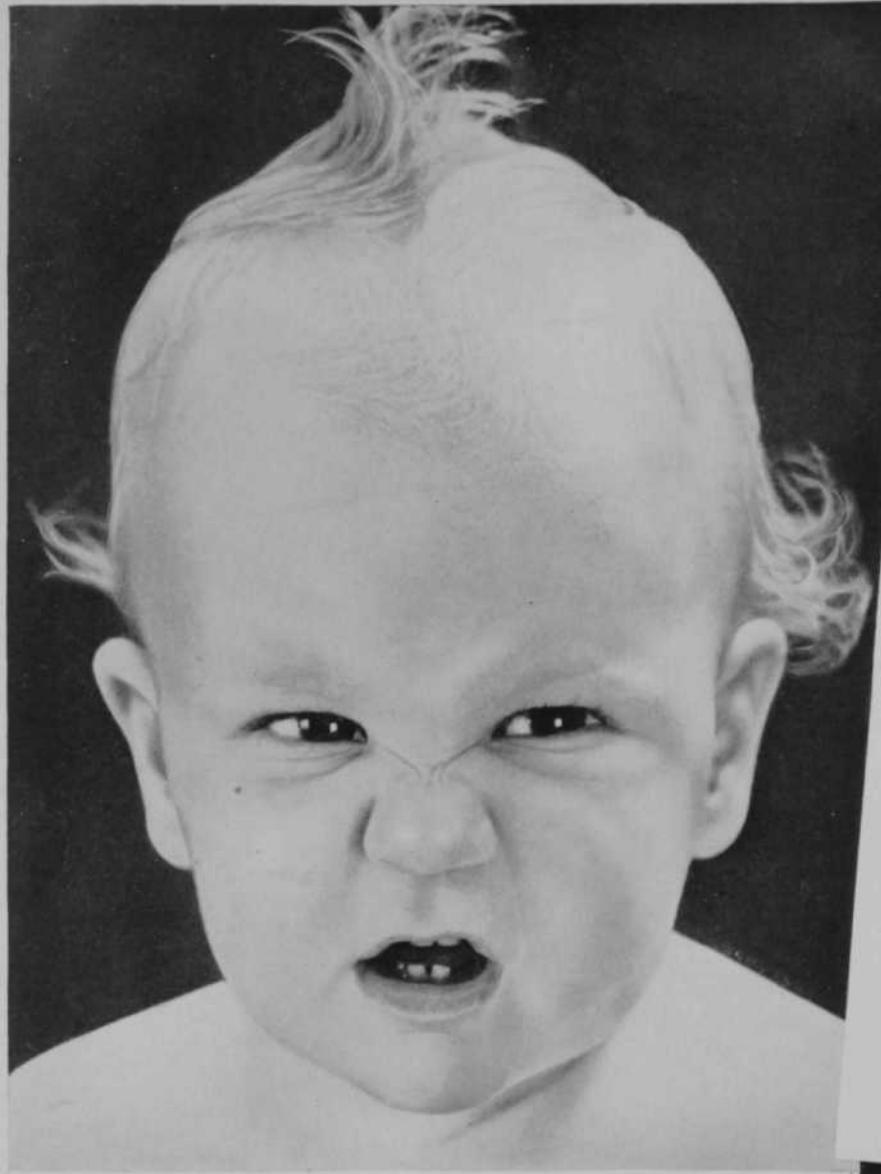


OVER
350,
000

CIRCULATION

Spring Opening—PAGE 11

March • 1941



Johnny's pretty peeved!

He's tired of being half an orphan!

Daddy went away on business three days ago. No word since. No evening romp for Johnny. Mother's sort of lonely, too, and a wee bit worried.

Why doesn't somebody do something about it?



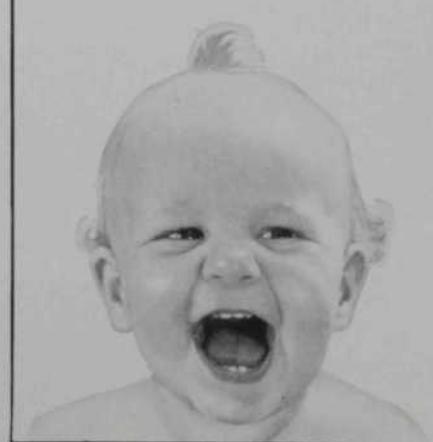
WAIT A MINUTE! When Mother misses her folks — what does she do? They live a long way from Mother. . . . Certainly Daddy misses Mother and Johnny. There *must* be a way.



THAT'S IT—the telephone! It's ringing now. Mother's hurrying to answer it. It's Daddy! He's 500 miles away, but you can hear him say, "Hi, Johnny," just as plain!



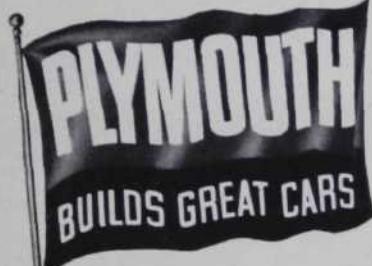
EVERYTHING'S FINE! Mother's all cheered up. Daddy is having a good trip. He'll be home before Johnny's bedtime tomorrow. And (shh!) he's bringing a funny fuzzy dog!



LONG DISTANCE RATES TO MOST POINTS ARE REDUCED AFTER 7 P.M. AND ALL DAY SUNDAY

GIVES YOU MOST... SAVES YOU MOST!

YOU'LL DISCOVER a whole new driving "feel" at the wheel of this new 117"-wheelbase Plymouth! New High-Torque Performance with new power-gearing gives you a sense of owning the road—and you enjoy the protection of new Safety Rim Wheels! Plymouth Division of Chrysler Corporation.



Plymouth Saves in 3 Big Ways:

1 LOWER COST—The 1941 Plymouth is lowest-priced of "All 3" low-priced cars on many models! And with its super-high 6.70 to 1 compression ratio—highest of "All 3"—you enjoy great power plus important gasoline savings. You save all around—when you buy and as you drive!

2 LONGER LIFE—Plymouth is the only one of "All 3" low-priced cars that gives you the engine protection of an Oil Filter and new Oil Bath Air Cleaner! And vital parts of the Plymouth engine are Super-finished against friction and wear. Plymouth is famous as "the car that stands up best!"

3 HIGHER RESALE—This greatest Plymouth of all time is the one new low-priced car that's most like the high-priced cars...in important quality features that mean longer life and *higher resale value!* See the 1941 Quality Chart at your Plymouth dealer's!

BIG, NEW 1941 PLYMOUTH—ONLY

\$685

Delivered at Detroit, Michigan, including all federal taxes. Transportation, state and local taxes, if any, extra. Prices are subject to change without notice.

MAJOR BOWES, C.B.S., THURS., 9 TO 10 P.M., E.S.T.



NEW HALF-TON PICK-UP

Commercial
Cars that
Stand Up Best!



Truck-engineered and truck-built...with advanced engineering that cuts down hauling costs! Big 3-man cab for greatest driver comfort and efficiency. Cab and box rust-proofed!

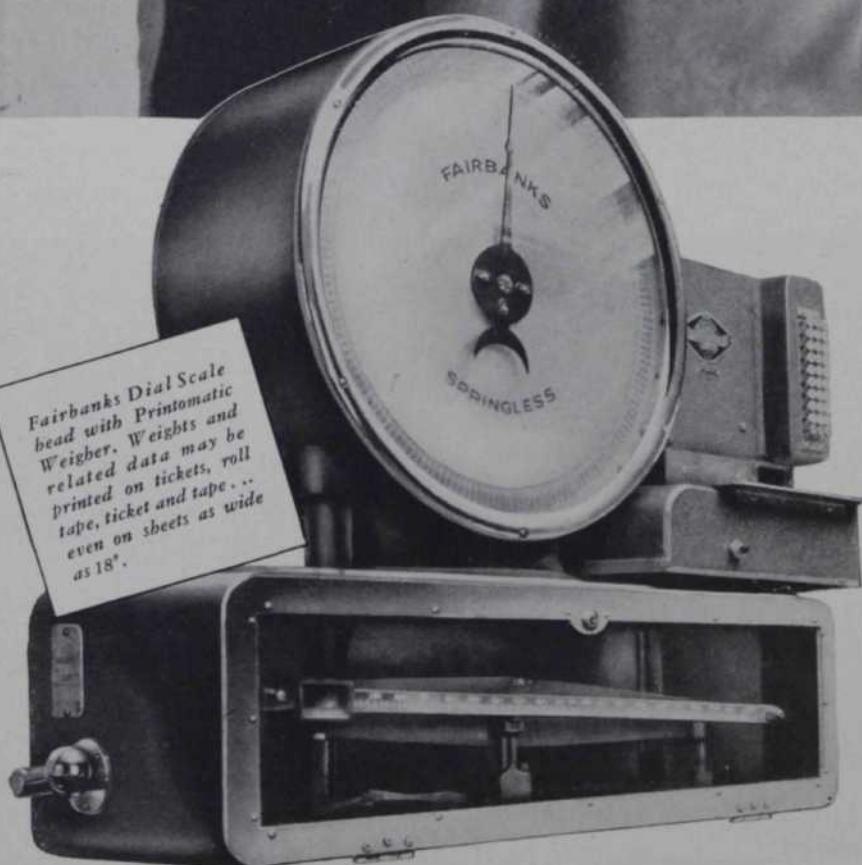
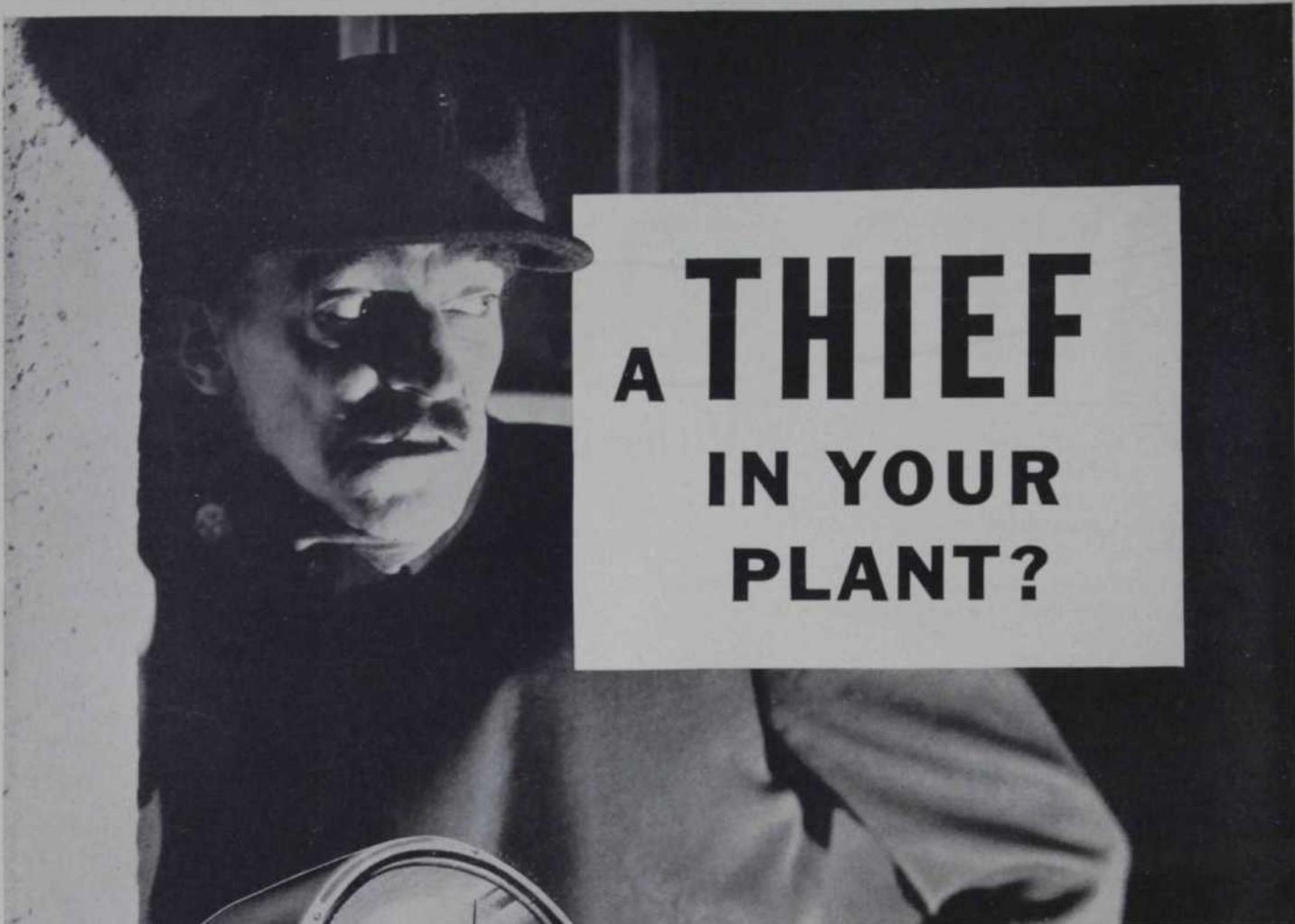
NEW PANEL DELIVERY



Its sleek new beauty is a distinct advertising asset to the business whose name it carries! Passenger-car handling ease for faster deliveries. And the big load compartment is fully lined!

Lowest-Priced of "All Three" on Many Models

A THIEF IN YOUR PLANT?



DO materials vanish mysteriously—inventories fail to check with stock records? It isn't necessarily a *human thief* that is causing these losses. *It may be a scale.*

In many plants, honest errors made in reading scales and in jotting down weights and later interpreting these hurried scribblings have been revealed as the sources of continual small losses that amount to important yearly totals.

How are these losses stopped? By equipping each scale with a Fairbanks Printomatic Weigher. At the touch of a button, the weighing operation is completed and an accurate *printed record* is made automatically.

For full information on these and other Fairbanks Scales, address Dept. C 56, Fairbanks, Morse & Co., 600 S. Michigan Ave., Chicago, Ill. Branches and service stations throughout the United States and Canada.

7007-SA40.99

FAIRBANKS-MORSE SCALES



DIESEL ENGINES ELECTRICAL MACHINERY RAILROAD EQUIPMENT WASHERS-IRONERS STOKERS
PUMPS MOTORS WATER SYSTEMS FARM EQUIPMENT AIR CONDITIONERS

MACHINES THAT MAKE MACHINES



THE MACHINES THAT MAKE MACHINES are the key to today's national defense . . . the key to tomorrow's commerce and industrial progress.

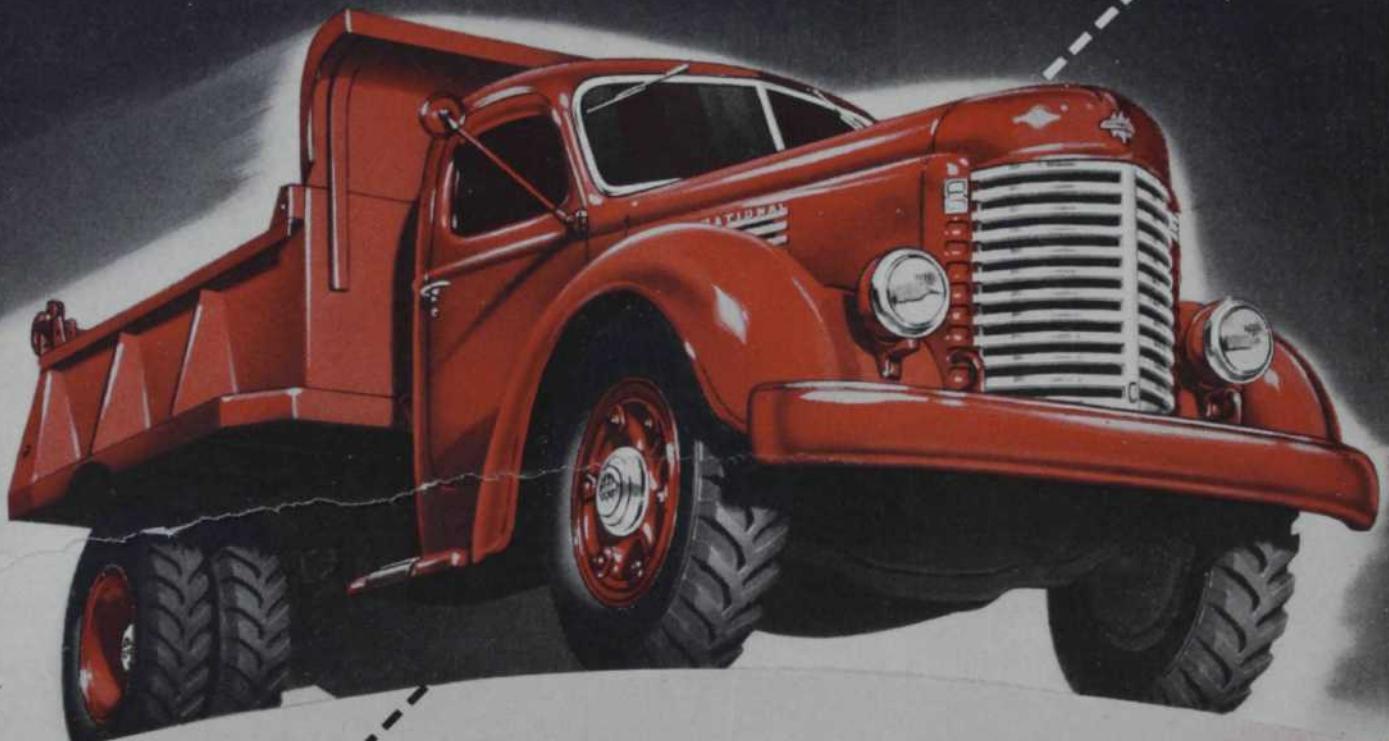
Texaco has long served the machine tool industry and all other industries—with quality lubricants. No chance exists for bottlenecks in this vital phase of operations, for these lubricants are always quickly available from more than 2300 Texaco supply points across the face of the nation.

THE TEXAS COMPANY

—in all
48 States



New INTERNATIONAL Trucks*



NEW POWER . . NEW STAMINA . . NEW ECONOMY

NOW International Harvester presents the new International HEAVY-DUTY Trucks—rugged, powerful trucks that are built for *heavy hauling!* Here is a glimpse of one of the many handsome models with which International begins its 34th year of truck manufacture.

From the moment you enter the new all-steel Comfort Cab with its foam-type rubber seat cushion and put one of these beautiful new trucks in motion, you will feel the difference. First, you will find a *revelation in easy steering.* Outstanding engineering is evident in

the new Hi-Tork brakes, the rugged rear axle, the larger easier-riding springs. These and many other International features, topped by the powerful new engine, bring you what it takes to *out-perform* and *out-economize* the past.

Get acquainted with International's new K-line trucks and you will understand why more heavy-duty Internationals are sold than any other make. See these new Internationals at the nearest dealer's showroom, or at any Company-owned branch. Catalogs on request.

INTERNATIONAL HARVESTER COMPANY
180 North Michigan Avenue
Chicago, Illinois

All-sizes, including
6-wheel and Diesel-
powered units.

Shake Hands with Our Contributors

"INDUSTRY is doing its full share in the defense program."

THAT is what Under-Secretary of War Robert P. Patterson told **Herbert Corey** in an exclusive interview for NATION'S BUSINESS. If this is the case, many persons will naturally wonder why the defense program does not progress more rapidly. That answer is also given in Mr. Corey's article, "Management Pulls Defense Load," beginning on page 15. Actually, "American industry will do in two years what it took Germany seven years to do and what England has not been able to do in four years," in spite of delays that aren't the fault of industry. Mr. Corey, a veteran reporter and contributor to many magazines, needs no introduction to NATION'S BUSINESS readers.

Dr. William G. Carr is Secretary of the Educational Policies Commission and Associate Secretary of the National Education Association. He has had direct teaching experience both in the high school and college field and has written widely on educational subjects in the past 12 years. His observations are of especial interest at this time since, with several others, he recently participated in field studies of some 90 high schools in 27 states.

T. Kirk Hill heads the Kirkhill Rubber Company in California which makes 8,000 different articles. James H. Collins who collaborated with him in preparing the article "War Orders—and Business as Usual" beginning on page 22 is a well known writer of books and magazine articles.

A member of the NATION'S BUSINESS staff, amazed at the job of civic improvement that he found in Hoquiam, Wash., thought it deserved national recognition. We liked the idea and arranged for a story with **M. S. Munson**, a member of the Chamber staff, obliging with "Saving a City is Good Business."

Arthur Whipple Crawford has specialized in covering political and financial news as Washington correspondent for various publications. He has appeared previously in NATION'S BUSINESS as well as other magazines.

J. Gilbert Hill, a frequent contributor, is on the staff of the Oklahoma Publishing Co. in Oklahoma City.

Verna Springer, who writes about consumers, is definitely one of them. Previously employed by an insurance firm, auto agency and real estate office, she is now the wife of an employee of a country bank. In her own words she is "boiling" to think that women whose existence depends on business are being taken in by a movement designed to "bring about the operation of all business by the consumers themselves."

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VOLUME 29

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Launching U.S.S. North Carolina

first line of defense

Sailors, no less than soldiers, "march on their stomachs." And first line of defense for the U. S. Navy's rations in 170 of the vessels now building, will be York refrigerating equipment! The Navy's confidence in York, which springs from long and honorable service with the Fleet, will find expression in every type of marine refrigeration . . . in the new 45,000 ton super battleships, in

cruisers, destroyers, aircraft carriers, submarines, supply ships. York accepts this profound responsibility as the ultimate honor of its 56 years of leadership in refrigeration and air conditioning.

York Ice Machinery Corporation, York, Penna. Branches and Distributors throughout the World.



YORK REFRIGERATION AND AIR CONDITIONING

"Headquarters for Mechanical Cooling Since 1885"

A FEW OF THE MANY NATIONALLY-KNOWN USERS OF YORK EQUIPMENT—American Air Lines • Armour • A. & P. • B. & O. R. R. • Bethlehem Shipbuilding • Canada Dry • Coca-Cola • Curtiss-Wright • du Pont • Eastman Kodak • Firestone • Ford • General Baking • General Foods • General Motors • Goodrich • Norton Company • Pabst Brewing • Paramount Pictures • Pennsylvania R. R. • Procter & Gamble • Shell Oil • SKF Industries • Socony-Vacuum • Swift • Texas Company • United Fruit • U.S. Army • U.S. Navy • Woolworth



The
RAILROADS
*** *Vital to
National Defense*

News of two gigantic mobilizations hit the headlines of the nation's press every day. America's armed forces are mobilizing for intensive training on land and sea, and in the air! America's vast industrial forces are mobilizing to convert raw materials into essential supplies, ships, shells, guns, and planes.

But the success of these tremendous efforts demanded another mobilization—the mobilization of the forces of the American railroads. And that has already been achieved. Smoothly, efficiently, the railroads are doing the job—moving men and materials every hour of every day in every part of this vast land. Mass transportation of the rails is vital to national defense!

**NORFOLK and
WESTERN**
Railway
PRECISION TRANSPORTATION
COPR. 1941 N.W.R.

A call for unity

Retail business today is confronted with serious threats through diversion of trade from retail channels, socialized retailing such as state liquor stores and the Government-operated stores in California, and Communistic devices to sabotage private ownership.

These words from a speaker at the annual convention of the National Association of Retail Secretaries prefaced a plea that retailers forget their petty squabbles and offer a common front to those who would destroy all private enterprise. This is no time for retail groups to be wasting their strength in civil war, he said.

The march of the news confirms this picture of a house divided against itself. Ten days later the National Association of Retail Grocers adopted a resolution calling for a special appropriation to finance an antitrust investigation of food distribution and inviting Attorney General Jackson to turn loose federal sleuths on the industry.

The moral of this situation is as old as Aesop: "If you allow men to use you for your own purposes, they will use you for theirs." It is the ancient fable of the horse who called on a hunter to help him settle his feud with a stag and ended by getting his revenge but finding himself saddled and bridled in servitude.

A Liberal without quotes

TIME plucks at the ear of another great justice and brings to a close his official career.

James C. McReynolds is a man cast in the heroic mold, a dissenter born to stand at Thermopylae and do battle against a wave of mass madness. When he assumed his robe in 1914, Justice McReynolds was universally hailed as a liberal. Now he doffs it as almost the last of the conservatives.

That measures the distance from Center to Left that the pendulum has swung in 26 years. It is not the man but the mass that has changed. Mr. Justice McReynolds is still a liberal just as he was then—in the liberal tradition of Burke and Fox and Franklin and Madison and Paine. That means

Through the EDITOR'S SPECS

a liberal by the test of devotion to liberty.

To him the Constitution is what the Constitution says it is—a wholesome restraint on the caprice of momentary majorities and the ambition of dictators.

"Gallus" conscious

A SPEAKER at the recent merchandising clinic of the Retail Men's Wear Council of New York suggested that men and boys be urged to buy a suit a month instead of once a year. There's no hope for expansion in sales so long as men continue to buy suits only as they need them, or on the basis of their wearing qualities, he is reported to have said.

There is a rustic legend that the height of sartorial ambition for a plain man of the people is to own a pair of suspenders for every pair of pants. Perhaps the embattled men's wear trade might make a beginning with this simple criterion of masculine dress. "One gallus for every trouser" would make an inspiring slogan for an advertising campaign. We formally proffer the suggestion as our humble contribution toward reviving industry.

Defense check-off

WHEN he was trying to avert the horrors of the French Revolution, Turgot wrote into the laws of France his great dictum that "The right to labor is the property of every man, and this property is the first, the most sacred, the most inalienable of all."

Today no one denies that right in the abstract. But in fact it is being denied every day at Government construction projects for defense. At Fort Devens and Camp Edwards in Massachusetts, for instance, non-union carpenters and unskilled laborers declare they are held up for \$50 to \$75, collected from them in installments, and then they are not even issued union cards.

More than that, they are charged \$2.50 to \$5 a week dues in unions to which they are never permitted to become members. This is not an isolated

HOW I RETIRED ON A LIFE INCOME OF \$150 A MONTH

To men of 40 who want to retire in 15 years

FI FTEEN years ago I made a discovery that changed my life. I believe it will interest you.

"At that time, I was worried about myself and my future. I seemed to be living in a circle. I used to dream of being able to relax and enjoy life, without money worries. I longed for security.

"But dreams like that seemed hopeless. I wasn't rich. I probably never would be. Like millions of others, I would simply live and work and die—spend a lifetime making ends meet.

"But that was 15 years ago. Now I have retired on a life income. I have no business worries—my security is guaranteed. I can work or play, as I like. Each month the postman hands me a check for \$150 and I know that I will receive another \$150 every month as long as I live.

Here's What Happened

"My friends are envious. They want to know how it was possible. How, without being rich, I ever managed to retire on a life income. The answer is simple: When I was 40, I discovered the Phoenix Mutual Retirement Income Plan.

"The minute I read about this Plan I realized it was just what I needed. It showed me how to get an income for life beginning in 15 years. It showed me how to get immediate protection for my family in case I did not live until then. It even included a disability income for me if, before age 55, total disability stopped my earning power for six months or more.

"Best of all, the cost of this Plan was within reason. In fact, the Plan called for far less money than ordinary investment methods would require to get the same income.

"Today, at the comparatively early age of 55, I have the things I want—life-long security and freedom to do as I please. I can laugh at the worries that used to haunt me. With an income of \$150 guaranteed me for life, I can be sure of comfort and happiness in the years ahead."

This story is typical. Wouldn't you like to make sure of your own



case. The practice is known to be widespread.

This is a racket in any honest man's vocabulary. It is conscienceless exploitation of helpless men desperately in need of jobs. Those who permit it are giving the lie to every profession of interest in protecting the weak against the strong.

Meat for strong minds

STRONG support for the meat packers, who are spending real money to counteract vegetarian doctrine, the salad-nibbling fad and the skinny ideal of female pulchritude, came from Richard Schneider, head waiter at Schlogl's restaurant in Chicago.

So many of Chicago's literary lights frequent Schlogl's that it has acquired repute as an intellectual service station. Many of the scribes show an indelicate fancy for hamburgers, says Mr. Schneider. They consume huge sirloin steaks and great quantities of liver dumplings and sauerkraut, lamb kidneys *en brochette* and two-pound broiled pikes.

Here is a tip for all laborers in the intellectual vineyard. A writer well stuffed with high calory content is not so prone to intellectual vaporings. Most of the literary giants ate as robustly as they lived and loved and wrote. Dr. Samuel Johnson wolfing his viands with such gusto that beads of sweat stood out on his forehead and the veins of his temples rolled up in great cords is not a pretty picture of etiquette. But what vigor of mind! A mental gladiator does not thrive without masculine provender.

The new morality

WHEN the chief auditor of the General Accounting Office asserts before a House committee that 700 federal employees took vacation trips to Florida at Government expense in the winter of 1939-40, he was only voicing what every informed person in Washington knows to be true. (N.B., July 1940, Page 7.)

That this practice has become almost an official code of ethics is bad enough. But the alarming thing about it is that the people do not rise up in righteous wrath at such disclosures. The event made hardly a ripple in the day's news. Truly did the historian Lecky reason when he said that the sense of right and wrong must first be blotted out of the minds of men before the way is prepared for the doctrine of collectivism.

Quotable quotes

OUR difficulty is that our sources of public revenue have not been able to keep pace with our growth of govern-



PHOENIX MUTUAL

Retirement Income Plan

GUARANTEES YOUR FUTURE

Phoenix Mutual Life Insurance Company
469 Elm St., Hartford, Conn.

Please send me by mail, without obligation, your book describing the PHOENIX MUTUAL RETIREMENT PLAN.

Name _____

Date of Birth _____

Business Address _____

Home Address _____

HOW TO GET A GUARANTEED INCOME FOR LIFE



ment.—Mayor La Guardia of New York City.

WE VIOLATE democratic precepts when we use the Government of the United States as a competitive weapon.—Isaac W. Digges, attorney for the Association of National Advertisers.

IF YOU don't handle your business it will be handled. . . . If this emergency is long continued and prices get out of line, numerous small steel mills and other allied industries will disappear. . . . It would not be fair for me to say the Government is fully satisfied with your industry. It is quite evident you people did not take seriously what I told you.—Leon Henderson, chief price "stabilizer" for the National Defense Commission, to members of the Scrap Iron and Steel Institute.

BUSINESS is going to depart increasingly from the usual in this new era. We are going to witness things that many of us doubted would be seen in our generation.—Col. Philip B. Fleming, administrator of the Wage and Hour Division, Labor Department.

I AM far more worried about what Americans are going to do to Americans in the next few years than about what Hitler is going to do to us. Hitler will be able to do us in only if and after we have done ourselves in by class war and foolish policies.—Lawrence Dennis in *The Nation*.

The "silly dollar sign"

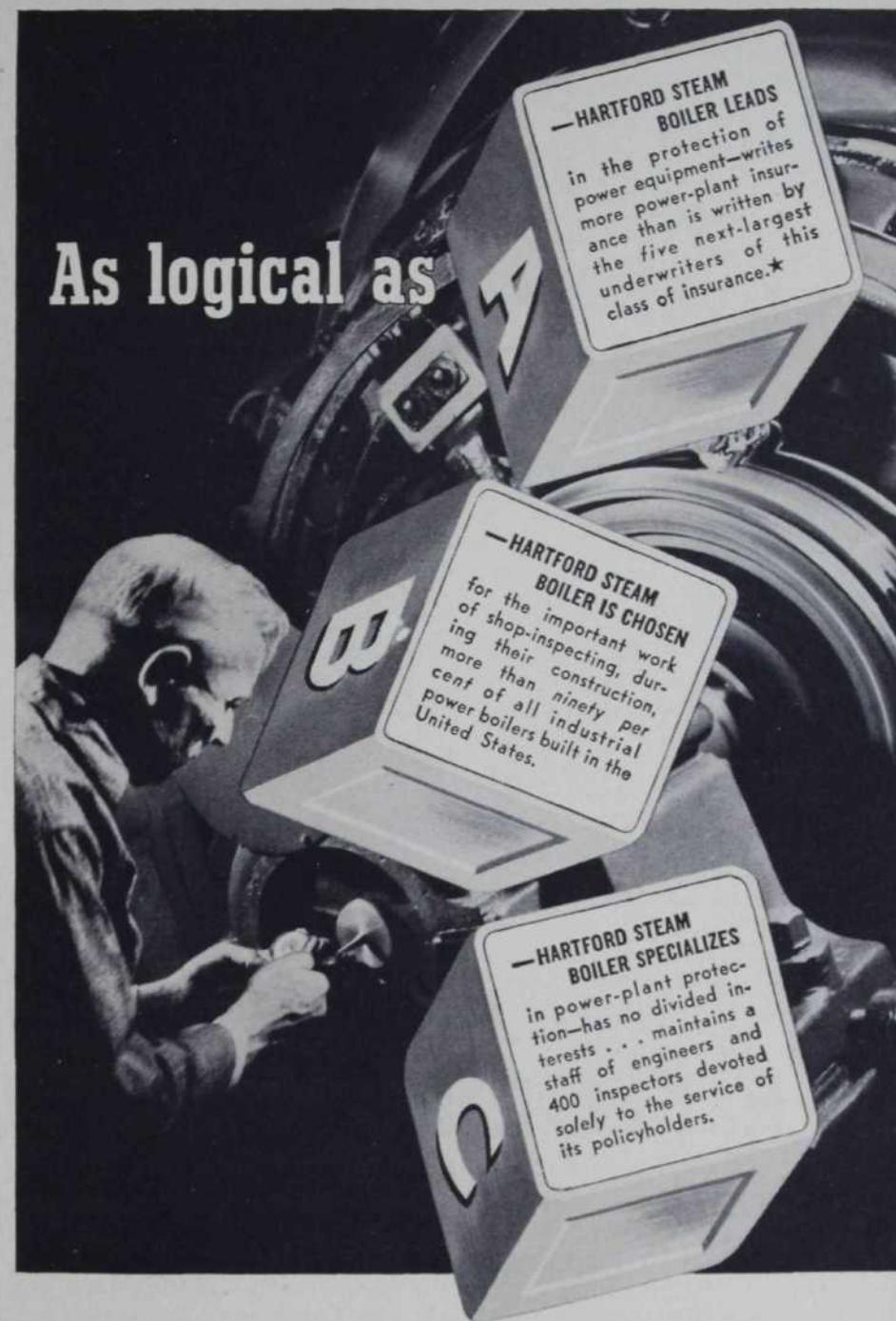
HERE is comfort for all of those—including some of our British friends—whose chief worry is that out of war orders will spring a new crop of American millionaires.

According to Benjamin M. Anderson, professor of economics at the University of California (Los Angeles branch), a man making \$1,000,000 in one year in New York State, would turn over \$807,000 to federal and state governments in income taxes at present schedules. To make \$1,000,000 net, he would have to earn \$7,141,075.

If every new millionaire contributes \$6,000,000 to the income tax till, not to mention several hundred other taxes, we should welcome a regiment of them.

Indispensable man

WITH ALL the unemployed and all the other millions of ambitious young men "rarin'" to conquer worlds, an old man nearly 80 still goes regularly to his office in Baltimore because his employers say they can't fill his place.



LOLOGICAL FACTS — like the above — promote logical conclusions. They become all the more convincing when policyholders write as did this man: "*The value of certain things cannot be measured by their price. The cost is but a token of their real service and value. . . . We have come to look upon Hartford engineering and service as part of our institution.*"

- Executives familiar with the nature of power-plant problems understand clearly the logic underlying the widespread preference for Hartford Steam Boiler insurance and inspection. They recognize that this particular class of protection affects their concerns' financial welfare and their own peace of mind too vitally to justify flirting with seeming "economies" arising from use of less than the best in engineering service. • Your agent or broker will gladly tell you more about Hartford Steam Boiler's outstanding facilities for rendering you superior service in its field.



★ Based on latest available five years' annual reports to State insurance departments.

THE HARTFORD STEAM BOILER INSPECTION AND INSURANCE COMPANY HARTFORD, CONNECTICUT

Covers: Boilers • Steam, Gas and Diesel Engines • Steam Turbines • Pressure Vessels
Electric Generators • POWER-PLANT PROTECTION BY POWER-PLANT ENGINEERS

**MEET A
WHEAT FIELD**
that will soon be yielding
500 MOTORS TO THE ACRE!



As swiftly as that, they're springing up . . . those new factories needed to build airplane motors, tanks, planes, guns and other defense items. They're the latest word in scientific factory construction. They're marvels of efficiency, safety and low-cost operation. Perhaps this is why, in many such plants, products will be . . .

. . . made **FASTER** and **BETTER** with the help of
G-E FLUORESCENT LIGHTING!

• For this amazing new lighting has already proved itself. Properly installed★ G-E Fluorescent Lighting delivers new high levels of light . . . fifty foot-candles and more . . . that help people see better, work better, feel better. It's cooler. It's low in brightness. It's the next thing to having a layer of daylight hung from the ceiling . . . to speed production . . . decrease spoilage. You can use it 24 hours a day . . . and the cost is surprisingly reasonable. No wonder everyone is talking about G-E Fluorescent Lighting!

It has swept into stores and offices, too! Because fluorescent lighting with G-E MAZDA "F" (fluorescent) lamps offers a practical way to have lots more light, along with modern styling, to attract customers, speed sales, step up efficiency, reduce eyestrain. It is doing things in corner bakery and big office building alike.

How can it help you? Why not see what fluorescent lighting can do to help your business? ★ Ask your local

electric service company or G-E MAZDA lamp distributor to tell you about lighting fitted to your needs, with G-E MAZDA "F" lamps . . . the kind made to stay brighter longer. They now cost less than ever!

NEW LARGER DISCOUNTS
on purchases of G-E MAZDA lamps (all types)
\$5.00 and up to \$15.00, list . . . 20%. • \$15.00 and over, list . . . 25%.

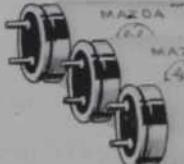
New discounts on yearly contract purchases start at \$300.00

See your G-E MAZDA lamp supplier.



G-E MAZDA "F" lamps are recommended for use only in equipment having high power factor, such as that marked by this label or the RLM label.

For top performance from this new lighting, be sure to get certified fixtures, bearing the FLEUR-O-LIER label, shown here, or the RLM label. These lighting units, together with their ballasts and starters, when certified by Electrical Testing Laboratories to comply with exacting specifications, assure you of balanced, satisfactory service. Because certification is open to any manufacturer whose product meets these standards, you have a wide choice of styles.



G-E MAZDA LAMPS
GENERAL ELECTRIC

with anyone else. His name is Daniel Willard and his employers are the Board of Directors of the Baltimore and Ohio Railroad.

Mr. Willard has been trying unsuccessfully to resign for the past ten years. He has done such a good job heading the B & O since 1910 that his "bosses" may be excused for regarding him as indispensable. Of course, it's no disparagement to say that he isn't really indispensable—no man ever was—but all young fellows who crave advancement and job security would do well to follow Mr. Willard's formula for achieving them.

That formula, according to his friends, is not to covet the job ahead, but to concentrate on extracting all the enjoyment and all the experience to be had from what he happens to be doing at the time.

Spring opening

ACCORDING to the calendar, March 21 heralds the first day of spring. Stores will be displaying hoes, rakes, forks and lawn mowers. Green spikes of the crocus and jonquil will announce their arrival to anxious watchers. Robins will start housekeeping again and "business as usual" will begin in the garden. In all this nation men and women will soon be worrying about their radishes and making war on insects. Quite different from the unfortunate state of Europe where bomb shelters grow in gardens and citizens worry over gas masks and casualty lists. The hoe, rake and spray gun, in our cover photograph by George Lohr, are appropriate symbols of a nation that digs—not a safe place to hide in, but to construct a "safe place for its differences."

Bibliophile's delight

THERE IS a touch of melancholy in the announcement that the famous library of the late A. Edward Newton of New York will be sold at auction. Treasures from all over Europe and America which for most of his lifetime the noted collector accumulated with loving diligence will be scattered among other bibliophiles or find their way into second hand shops.

Mr. Newton was an electrical manufacturer. While operating a successful business he found ways of embellishing his life by a singularly fruitful margin of leisure. He not only collected rare old volumes, he read them. More, he wrote in a style of inimitable charm five books of his own about books. This set now graces the rare book collection in the Library of Congress.

A busy man's hobby can be far more than collecting campaign buttons or playing pinochle. It can be

made to yield spiritual riches that sweeten his declining years.

An odorous comparison

IN LOS ANGELES a municipally owned electric utility system serves the densely populated urban area, the cream of the market, and a private corporation, the Southern California Edison Company, operates in the outlying territory. Here is how their operations stack up:

Southern California Edison Co., calendar year 1939

Operating revenue.....	\$45,785,983
Taxes paid.....	7,936,956
Ratio taxes to revenue.....	17.33%

Municipal Light Bureau, Fiscal Year Ending June 30, 1940

Operating revenue.....	\$30,173,456
Taxes paid.....	112,086
Ratio taxes to revenue.....	.37 of 1%

Although the private company was taxed 47 times as much on each dollar of revenue as the favored municipal plant, its average rate was 1.54 cents per kilowatt hour compared with 1.95 cents for the city-owned utility. Federal corporation taxes were increased from 18 to 24 per cent, effective in 1940, which would have made the disparity even greater if the Edison Company's year had coincided with the City Light Bureau's fiscal year.

Respectfully submitted to the "power trust" baiters, Senator Norris and Representative Rankin, for possible, but not probable, inclusion in future speeches on government ownership.

When is a surplus?

SEEING butter listed as one of the surplus commodities purchasable under the two-price food stamp plan, Vice President Wallace's remedy for extraordinary farm surpluses that depress market prices and injure farmers, starts a train of thought. What is the basis for classing butter as a surplus product? The Department of Agriculture says in one of its reports:

On a *per capita* basis, the supply of butter available for domestic consumption is about one per cent below the pre-depression average.

Other products in the same category are eggs, dried beans, potatoes and fresh fruits. The present supply of eggs is three per cent under the average for 1925-29. Stocks of dried beans, potatoes and fresh fruits likewise are comparatively low.

If any producer has more of his product than he can sell at a satisfactory price, now is the time to speak up and have it government-subsidized. This is an "emergency" that has always existed. In good times and bad some producer is forever overestimating his market.

ARE EMPLOYEE LOANS A PROBLEM IN YOUR BUSINESS?

WHETHER or not to make employee loans is a problem which has puzzled many executives. Workers should have a place to borrow for emergencies, of course. But where? From the company? If your firm is not too large, you may be able to make the necessary loans from company funds. But in plants with scores of employees, some other solution is usually needed.

Loans for small borrowers

In some industries, employees successfully operate their own credit unions. But millions of workers must depend on some other loan source. To provide loans for these men and women is the job of the family finance company like Household Finance.

How borrower is protected

Household Finance has branches in most industrial states. These states have passed Small Loan Laws. These laws, written to make our industry possible, and to *serve and protect the borrower*, state how we shall operate our business—how we shall deal with our customers—how much we may charge.

Without sacrifice of pride or privacy, the responsible worker can borrow up to \$300 at Household Finance largely on character and earning ability. No endorser or bankable security is required. No wage assignment is taken. A convenient installment plan helps the worker to repay out of income.

You will note, in the table of typical loans and payment plans below, that the borrower may choose the plan which best fits his own situation. Installments include charges at the rate of 2½% per month (less in many territories.) These charges are substantially below the maximum allowed by the Small Loan Laws of most states.

WHAT BORROWER GETS

	WHAT BORROWER REPAYS MONTHLY				
	2 paymts	6 paymts	12 paymts	16 paymts	20 paymts
\$ 20	\$ 10.38	\$ 3.63	\$ 1.95		
50	25.94	9.08	4.87		
100	51.88	18.15	9.75	\$ 7.66	\$ 6.41
150	77.82	27.23	14.62	11.49	9.62
200	103.77	36.31	19.50	15.32	12.83
250	129.71	45.39	24.37	19.15	16.04
300	155.65	54.46	29.25	22.98	19.24

Above payments include charges of 2½% per month and based on prompt payment are in effect in seven states. Due to local conditions, rates elsewhere vary slightly.

Last year Household made helpful loans to over half a million families. To these families Household also gave guidance in buying and budgeting, helped to make them wiser managers and better buyers. Many schools and colleges use Household's booklets on money management and better buymanship as study texts.

If you employ or supervise men, you are invited to send the coupon for further information. You will be under no obligation.

HOUSEHOLD FINANCE

Corporation

ESTABLISHED 1878

Headquarters: 919 N. Michigan Ave., Chicago
One of America's leading family finance organizations, with 288 branches in 190 cities

HOUSEHOLD FINANCE CORPORATION, Dept. N.B.3
919 N. Michigan Ave., Chicago, Ill.

Please tell me more about your loan service for wage earners—without obligation.

Name.....

Address.....

City..... State.....



How research is ***SHORTENING*** one of America's defense lines by 10,000 miles

The story of CHEMIGUM—the rubber plantation that grew in a test tube

EVERY schoolboy knows that 98% of America's rubber supply now comes from the East Indies, ten thousand miles away.

That is a long and tenuous life-line for a material so essential to both the nation's everyday needs and its defense program.

But fortunately, long before war flowed across the world, we were giving thought to this danger in the great Goodyear laboratories.

Quietly and without fanfare Goodyear research chemists first began working on the problem of synthetic rubber over a dozen years ago.

Experimenting with more than 300 different chemical compounds, we had by 1937 produced four different synthetic rubbers definitely supe-

rior to the German product Buna.

But what we had set up as our goal was a synthetic, not almost as good as rubber, but one *equal to, or better* than the natural product.

So we went back to our retorts and test tubes and finally perfected CHEMIGUM. It is now possible to make these definite statements:

CHEMIGUM excels natural rubber in tensile strength and in resistance to abrasion—two important factors contributing to longer wear.

It ages more slowly than natural rubber. It is oilproof, which makes it superior in many types of hose and other mechanical rubber goods.

Today Goodyear is preparing a plant to produce several tons of CHEMIGUM daily. The point is—we have the plans and trained personnel ready to swing into action should America's natural rubber supply ever be threatened.

The development of CHEMIGUM assures that, come what may, both the public and the nation can depend on continued supply of those matchless products that have long identified Goodyear as "*the greatest name in rubber.*"

Chemigum—T. M. The Goodyear Tire & Rubber Company





To Keep the Record Straight

BY THE time you read this the Lend-Lease bill to aid countries defending themselves against the axis powers may be the law of the land. Even so, this measure is such a departure from traditional American policy that the position of the business community is restated.

The Board of Directors of the Chamber of Commerce of the United States, representing approximately 700,000 underlying members, reaffirmed in January the conviction of its membership that "our first obligation is to preserve and defend this country and its form of government."

After full consideration of the Lend-Lease bill, the Board favored "the Congress enacting promptly, but after full hearing and debate, legislation designed to accomplish the following:

"(1) To sell, lease, or give such military properties as now or hereafter may belong to the United States, as may have the express approval either of the Congress or any bi-partisan committee thereof, to the British Empire and other democracies now or hereafter fighting aggressors, without committing any recognized act of war.

"(2) To give the British Empire and other democracies defending themselves from aggressor nations such credit or cash as the Congress may specifically approve.

"(3) To give to such democracies such further and additional aid as may be possible, consistent with our own defense requirements, subject to the following express limitations:

"(a) That in so doing no recognized act of war be committed;

"(b) That no ship owned by the United States or flying its flag be sent into the war zone as defined by the Neutrality Act, except with the prior

express approval of the Congress;

"(c) That no soldiers, sailors, or other representative of the armed forces of the United States, other than high ranking officers, be sent into the war zone except with the prior approval of the Congress."

From every section comes the word from American business: All the nation's energies should be devoted to creating an impregnable defense and aid to the other nations; the Congress should enact in all defense legislation only provisions that are definitely necessary to this end, and completely eliminate all which will tend to defeat the fundamental objectives of defending the country and its form of government.

Business believes it is not necessary for the President to be specifically excluded from the restraining influence of any law. It believes it is not necessary for the President to have the power to deliver military equipment to Great Britain and other unnamed countries without the knowledge of Congress. The Congress has shown many times before that it can promptly meet any contingency, and it is not only unwise but also unfair to shift such constitutional responsibility to the shoulders of any individual, however capable or willing.

There business stands. It has faith that its position would provide the fullest measure of national defense; insure preservation of the American form of government; promote the general welfare through greater unity of purpose, and secure the blessings of liberty to ourselves and our posterity.

Meredith Thorpe

MOST USED ALONG THE ENTIRE BUSINESS FRONT



FIRST on the roster of *all* the trucks in the nation! There are more Ford trucks on the road today than trucks of ANY other make! First on the roll call of all the trucks ever built and bought in this country! More Fords have been made and sold than trucks of any other make! First in horsepower per pound of gross vehicle weight, for comparable equipment. No wonder Ford Trucks get "first call" from operators who check closely into costs and quality.

FORD TRUCKS



AND COMMERCIAL CARS

Management Pulls Defense Load

By HERBERT COREY

American business is doing the preparedness job in a way no other country has matched in spite of daily changes in specifications, plans and program

"INDUSTRY has been doing its full share in the defense program."

Under-Secretary of War Robert P. Patterson speaking. More about him presently. Back to what he said about American industry and the job it has been asked to do:

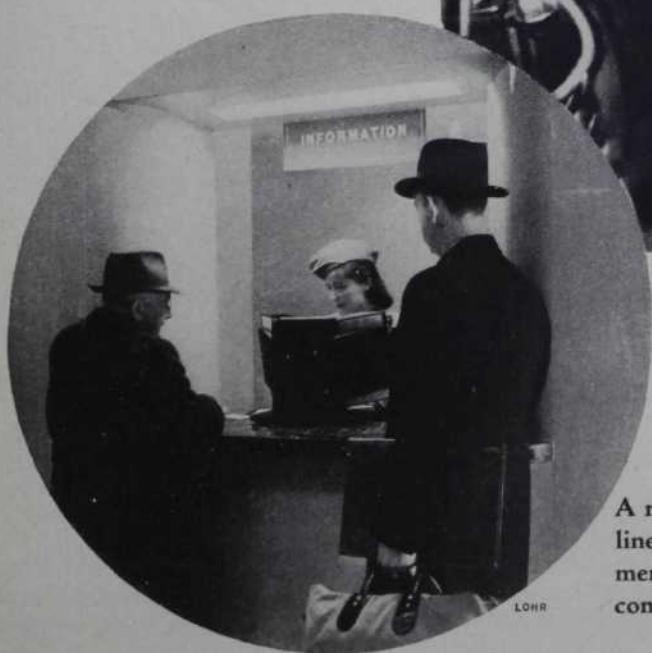
No possible criticism. Industry has been cooperating fully. There have been disappointments, but they have not been industry's fault.

Col. A. R. Ginsburgh addressed the Under-Secretary. His duty is to know a good bit about practically everything as an aide to the Under-Secretary. A Ready Reference never flustered, al-



PICTURES, INC.

Under-Secretary of War Robert P. Patterson says industry gives whole-hearted cooperation



A never ending line of business men arrives for consultation
LOHR

ways on the firestep. He said:

American industry will do in two years what it took Germany seven years to do and what England has not been able to do in four years.

Assent by a nod.

Here are a few of the things American industry has been asked to do in two years:

Arm and equip an army of 2,000,000 men with everything from long underwear to 30 ton tanks. Get ready for a 4,000,000 man army.



Employees of the War Department and Office of Production Management park outside the building that was built for Social Security Administration



Applicants of all ages seek jobs. At present rate of increase there will be 175,000 federal employees in Washington by July

Double the size of the Navy, both in ships and weight of guns.

Provide trainer, combat and bomber planes as rapidly as the new army of 2,000,000 can use them.

Build 200 new steel ships.

Build not even Heaven knows how much new factory acreage, new houses for factory hands, train all the green men it can find into good mechanics, and deal with demands that shift like torn-up paper in a high wind as a confused and disorderly program slowly takes form.

Build 30 cities in 30 camps for conscripts in which 1,400,000 new soldiers are to be gathered, protected from flies and germs, fed and bedded, drilled and amused, and all to the perfect satisfaction of alert American motherhood.

Create airfields, telephone circuits, railroads, oil, water and gas lines, shipyards,

Rubber companies go into production of gas masks

proving grounds and, as a side line, the machinery for air and submarine and surface bases on 50 Caribbean islands.

And several myriad other things.

All this starting from scratch, on an overnight call, with no warning in advance, with the certainty that American industry would be the whipping boy for every labor agitator and buzz-brained official and mouthy politician in

the land. In the full surety that, after eight years of attack, the public would be in a mood to believe the worst of it. In the knowledge, if any one in industry cared to worry about it, that the immensity and intricacy of the program would operate to obscure the picture of what industry is doing, because no one can see a mountain if his full attention is taken up by a tree. But that is not all of it.

Confusion is official

AMERICAN industry is doing the job in a way that the industry of no other country has matched. There have been missteps, flarebacks, faults and failures, of course. So have there been in every other country. But the confusion which has seemed to the public to exist has been the fault in part of overzealous officials who have tried to whip fright into Americans by complaints about industry. In part it has been due to the early lack of plan and the reluctance of authority to get out of the realm of wind and into the kingdom of action. In part it has been due to fragmented reporting by the newspapers; to headlines that shriek, as many did shriek:

ONLY 100 PLANES LAST MONTH GIVEN TO AMERICAN ARMY

That is only part of a fact. The Army got only 100 planes, but the Navy got others. Britain got most of the output. The Germans had knocked English planes out of the air with some new

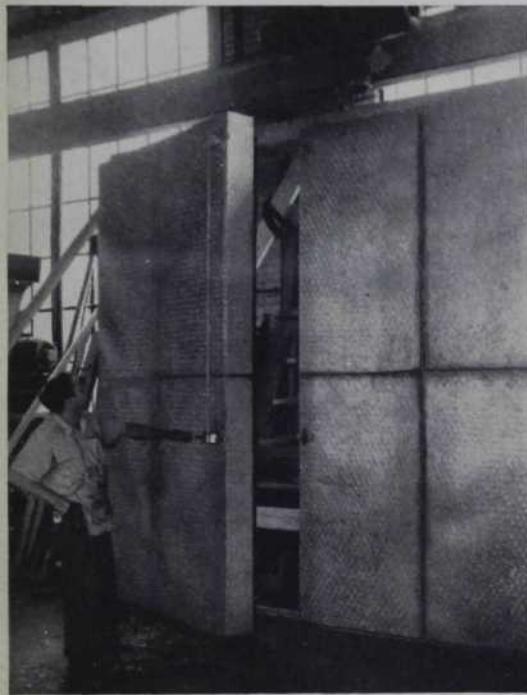


GOODYEAR

bosom of the *Luftwaffe*, and the English had come back with a new plane that had hammered Billy Hell out of the new German planes, and the designs for new American fighters were being redrawn to meet the new knowledge.

There is not room in one column, 48 point head, for all that information. News is at its best when it is worst. A

newspaper made up entirely of hosannas would not sell. But the perfectly true and inevitably incomplete stories of the day gave Mr. and Mrs. American the wrong idea about what industry is doing and how it is doing it. This is an attempt to restore the balance. At least in part.



YORK ICE MACHINERY

Industry helps make gun tests by furnishing doors to seal cold rooms

Let's get back to Judge Patterson and the interview.

"Industry has given us whole-hearted cooperation in carrying the munitions program forward. While the press speaks of such and such concerns having "won" contracts with the War Department, the fact is that, in many cases, the contractor did not "win" a contract. In many of our most important projects—the powder plants, the tank arsenals, the airplane engines—the Government took the initiative and asked a company qualified for the work to undertake it as a patriotic duty. And the response by industry to this appeal has been most heartening."

A new kind of Army

SO MUCH for today's new army of 2,000,000 men and the part industry has been playing. But Army officers have been talking for months about the new army of 4,000,000 men which is to come. An army of 4,000,000 men was contemplated in the plans for mobilization—M Day—which date back to 1920. Recently a different kind of army of 4,000,000 men has been talked about. The story now is of hemispheric defense and a two-ocean Navy and an arsenal for world democracy and a pledge that

we will defend all the good little peoples on the other side of the hill.

One phase of the story is that American industry will be called on to provide arms and munitions and mosquito boats and planes and our new semi-automatic rifle and our Munson-last army shoes to 2,000,000 men in the armies of these other good but put-upon nations. The number being mentioned at the moment is 2,000,000 men. The number might as well be 4,000,000 because no one knows what may happen. The program or the lack of program or the syllogistic symphony which sounds like a

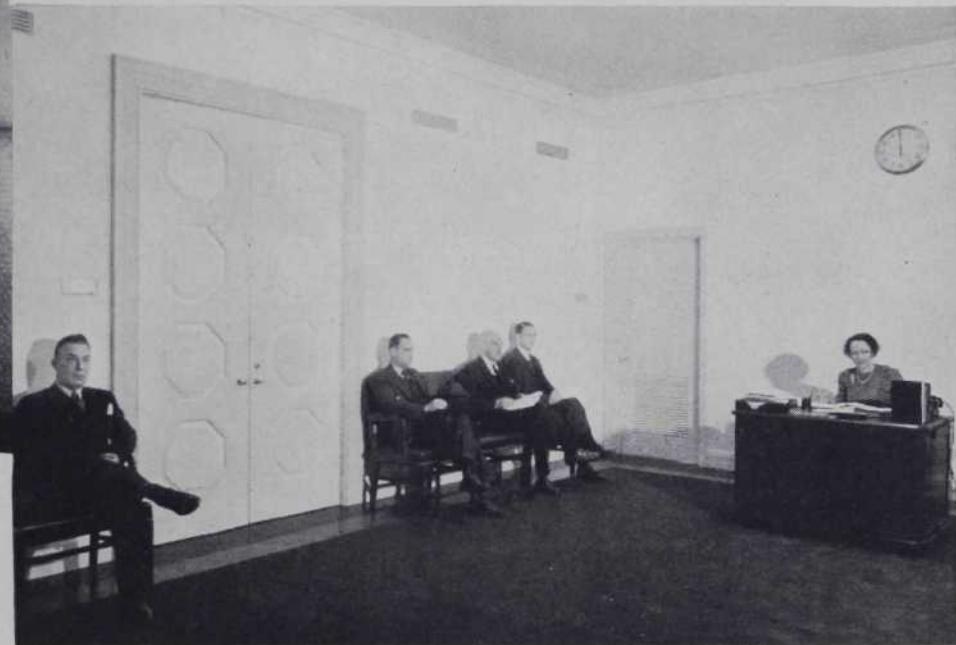
program has been giving hot flashes to responsible and well informed officials. Judge Patterson had repeated his statement that, as far as the American program for a 2,000,000 man Army and a two-sea Navy is concerned, industry is up to the minute:

"How about the ability of industry to supply the needs of the army of 2,000,000 from other countries we have been talking about? Can industry do it?"

"That idea," said Judge Patterson, "gives me growing pains."

"It is charged that the United States can be 'dictatorial' to these other countries because they could only procure

(Continued on page 86)



Business men who are making every effort to comply with the Government's defense needs are frequent visitors to Mr. Knudsen's office



Blueprints for defense. A section of the ordnance office where equipment plans are drawn up in basic form and detailed to manufacturers



At every opportunity good schools will help young people to see behind this country's flag the substance and the ideals for which it stands

LOUIS FANCHER

An Educator Bids for Partners

By WILLIAM G. CARR

YOU, as an American citizen, own one voting share of stock in American Education, preferred. As a stockholder you have both a right and a duty to help choose the managers of the enterprise (the school board), to obtain reports from these representatives, to examine the quality of the product, and to inquire into costs and benefits. The public schools belong to all the people. Public education is an important public business; it is not the concern of teachers and children alone. Business men, wage-earners, farmers, and housewives, all share in the benefits of education, cooperate through taxation in paying for it, and have certain obligations toward it.

American citizens today—young and old alike—are examining as never before into the privileges which American education provides and the duties which it exacts.

Just now the people who work in your schools, Mr. American Citizen, your employees in this important business of education, particularly need and want your interest and help in connection with two related problems:

Problem 1: How can your schools improve their work in developing good citizens?

Problem 2: How can your schools improve the economic well-being of the American people?

The war abroad and the national defense program at home have made good citizenship the nation's number one educational job. Your schools have always been concerned with this purpose; today they are working at it as if the very future of democracy depended, as it well may, on their efforts. The good citizen of the United States is a different kind of creature from the good citizen in some other parts of the world today. A good citizen with us is humane, not ruthless; he shows intelligent teamwork rather than automatic obedience; he thinks independently rather than taking his opinions from a single source; he refuses to be led around by selfish propaganda. He is informed on the political and economic issues of the day, and the more "hot" the issues are, the more insistent he is upon his duty to get the facts and reach an honest judgment.

He is loyal to the ideals and institu-

THE U. S. CHAMBER is urging a revival of interest in education among its members. This article suggests ways and means by which teachers and business men may join in the support of a strong, unified educational program

tions of American democracy, not because somebody orders him to be loyal, not because he is hypnotized by slogans, but because he knows from study and practice how important freedom is, how it might be lost, and how it may be protected.

Now, the preparation of the young for this kind of citizenship is one of the most delicate and difficult tasks in the world. The dictatorships have a much easier job. They can make unlimited use of propaganda. They can deify their rulers. They can compel obedience, instant obedience, and break the spirits and the bodies of those who are slow to conform. They can ride roughshod over human rights. They can and do control the press and all the other organs which form public opinion. But we Americans don't intend to follow that route.

Teaching Americanism

THE methods used in our schools for developing good *American* citizens are the result of many years of experience, research, and reflection. These methods are constantly being tested and improved. Although these methods vary a great deal, as they should, from school to school and even from teacher to teacher, they have several elements in common.

First, they all teach the basic ethical values of our American democratic life. The origin, growth, reversals, and triumphs of our moral ideals and free institutions are traced through the long history of mankind. Students are helped to see what the present human liberties have cost in terms of human effort, how the gains already made can be protected, where the performance of

the present falls short of the promise of our ideals, how the frontier of liberty may be pushed forward, how responsibilities and privileges go together.

In this process absolute sincerity is essential. Distortion of the truths of history by a Pollyanna attitude toward facts is intolerable. If history and social science are written and taught "to order," as they are in the dictatorships, and if youth finds out the deception, the whole process is wrecked by loss of confidence. If youth does not discover the deception, it is given a distorted view of the past and a shaky guide for the future. In either event, the result is disaster. Honesty is the best policy in education, as in business.

Business men can help the schools by taking an active personal interest in the educational policies in their own communities, and by encouraging and defending honest, impartial teaching about the social and economic issues before our country.

The second common element of education for American citizenship is that it considers the issues of American life today in an atmosphere of intellectual freedom. Teachers know from long experience that competent citizens cannot be prepared by insulating students from the critical issues of life. The discussion of controversial questions must proceed, of course, with due regard for the maturity of the students and with complete fairness. Always, the ideals of American democracy will be held up as the proper basis for reaching decisions.

Business men can help by defending the schools and colleges against extremist groups of any persuasion who would limit instructions to topics which, in their opinion, are "safe" and

who would exclude all viewpoints except their own.

Another general element of education for citizenship is practice. You would not teach a boy to swim merely by having him stand on the edge of the pool and memorize speeches about the values of swimming. You would not teach a girl to operate a sewing machine merely by showing diagrams of the various parts of the machinery. Teachers know that we cannot build habits and skills of good civic behavior just by making speeches or by studying the machinery of government. Unless we give young people some thoughtful practice in running their own group affairs, even though they may make occasional errors in doing so, the task is rendered almost impossible.

Business men, knowing that practice makes perfect, can help develop citizenship by encouraging student clubs, student participation in school government, and similar activities. The uninformed may call these things fads but people with greater insight will see that they are essential parts of a complete program for developing good citizens.

Finally, there is a definite place in civic education for ritual, symbolism, and other types of teaching which engage youthful emotions in a strong attachment to ethical ideals. This element of the program is the easiest part of all to operate. Because such activities are often highly spectacular, they easily can be overemphasized. We do not trust our democracy to the unstable support of emotional attachment alone. At every opportunity, good schools will help young people to see behind the flag the substance and the ideals for which it stands.

Business men are trained to exercise their intellectual faculties and to avoid entanglement in mere phrases. They know that actions count for more than words. They can, therefore, help the schools by keeping a sense of perspective in the community, which will appreciate both the values and the limitations of emotionalism as a basis for patriotic thought and action.

The second big problem that the schools and colleges face today is that of making the greatest possible contribution to the economic well-being of

the American people. In this field, business men have peculiar abilities and, therefore, peculiar opportunities for service. Here, efficient modern schools and efficient modern business have a common goal.

There are at least three things which education and business can do to contribute to economic well-being. They can develop economic literacy, they can promote efficiency in personal economics, they can prepare youth for useful work.

Education for the people

THE first necessity is for economic literacy among all the people. Mere ability to read and write is not enough. Grave questions of economic policy confront this country. Since we aspire to conduct our affairs on democratic principles, all of the people must be equipped to reach intelligent conclusions on these complicated economic issues.

By teaching the elements of an understanding of business, labor, and of economic organization in general,

(Continued on page 96)



The good citizen of the United States differs from the good citizen in other parts of the world. He thinks independently and it is his duty to reach an honest judgment on political and economic issues

Leaders in the March of Business



Arthur F. Hall (right)



Edgar M. Queeny throws switch to start furnaces in new plant



ACME

Charles J. Stilwell
(center)

Arthur F. Hall, Chairman, The Lincoln National Life Insurance Co. of Ft. Wayne, Ind., whose company established new high records last year in assets, reserves, insurance in force. Admitted assets, now totaling \$166,000,000, increased about six per cent in comparison to three and a half per cent for all insurance companies.

Edgar M. Queeny, president, Monsanto Chemical Co. which recently added improvements to its Tennessee plant that will make it the largest elemental phosphorus plant in the world. Elemental phosphorus, converted into phosphoric acid and phosphate compounds is used in heavy industry as well as in food and medicinal products. His company is also building a new plant for the Government in Monsanto, Ill., which will make chemicals required in munitions production. The chemical plant is to be operated at no profit to the company.

J. W. Gardner, chairman of the executive committee of the Gardner-Denver Co., was recently honored by his associates for 60 years of continuous service including nearly 30 years as president. Mr. Gardner's anniversary came at almost the same time as the company's announcement of its expansion by acquisition of a new 13-acre plant near the main office in Quincy, Ill. Mr. Gardner thinks his greatest accomplishment was in helping to keep the company in step with progress—when steam power was giving way to electricity and the company developed new line to fit the changing requirements.

Charles J. Stilwell, president, Warner & Swasey Co., who anticipated the need for machine tools when the war broke out with the result that last year his company delivered \$19,000,000 worth of tools in comparison to \$9,200,000 worth in 1939. The company increased its floor space nearly 33½ per cent in 1940 in addition to investing more than \$1,000,000 in new equipment.

Philip R. O'Brien, 48, member of the exchange since 1915, is the new president of the Chicago Board of Trade. In addition to his exchange operations, he owns and manages two farms in Wisconsin and Illinois.



J. W. Gardner



FOTO-AD
Philip R. O'Brien (left) and P. B. Carey

War Orders—And Business

By T. KIRK HILL
As told to James H. Collins

OUR FIRST war orders came to us late in 1939—rubber parts for British fighting planes ordered from Los Angeles aircraft makers.

At the beginning of 1940, war work amounted to about five per cent of our total production. But it soon began to rise, as Uncle Sam awoke to the defense emergency.

Today, our war work is 45 per cent of the total, and still rising.

We want it to rise, until the world is out of this mess. If called upon for 100 per cent, we are ready. At present, we are actively seeking war work.

But we are also actively seeking "business as usual," which means orders for the thousands of peacetime articles that a rubber factory makes for everyday people—everything from washers for the kitchen faucet, rubber nipples for the baby's bottle, and rubber mats, up to rubber equipment used in oil wells three miles deep, where the



Front of the Kirkhill plant where 45 per cent of present business is for national defense

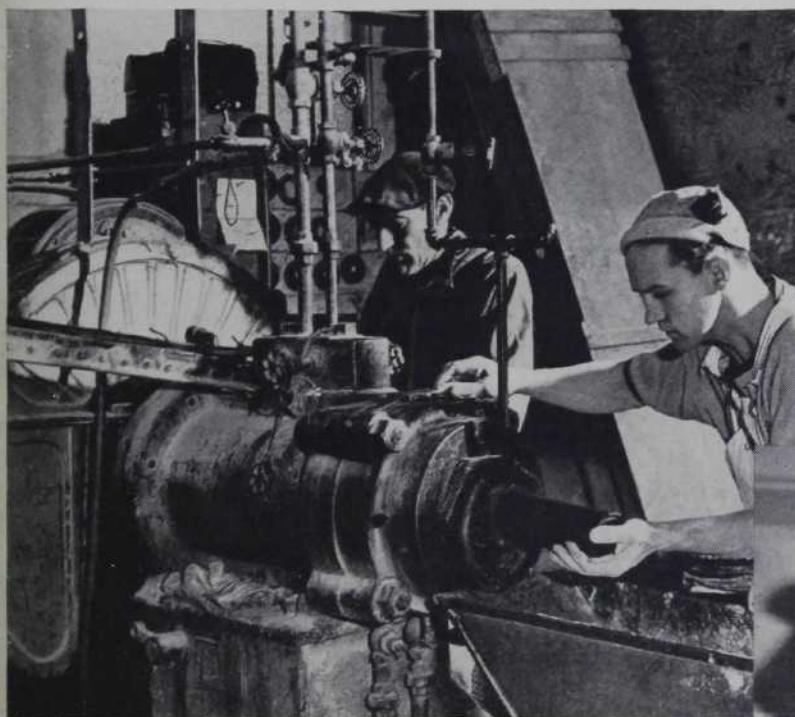


A workman at one of the hydraulic presses. Under company's plan, if war orders ceased tomorrow, this man, like all others, could be kept busy six months



As Usual

HOW ONE manufacturer takes care of all his war business and at the same time builds his regular lines as a cushion against the shock of future demobilization



Tubers preparing work for the press line. The company's line includes everything from nipples to oil well supplies

bottom temperatures are above boiling.

We believe that telling our experience of the past 15 months will be helpful to other manufacturers, who are eager to do everything possible to further the defense of our country, but who, at the same time, look forward to the day when peace returns, and they must find themselves able to provide continuance of jobs for their employees.

Peace may come this year, next year, five years hence—we do not know. But we believe that the business man who looks ahead to that day, and gets ready as far as possible, is as patriotic as the one who goes "all out" in war work.

In 1939, our average production was around \$60,000 a month.

In 1940, it rose to around \$100,000 a month, and we increased the number of our employees from 180 to 300—

Faucet washers in new dress brought vast new business

today we have nearly 350 working.

The first effect of war work was to give us five years' growth in a few months. Our normal business was then growing about ten per cent yearly. At that rate we would not have touched the \$100,000 mark until some time in 1944.

On this sudden increase, we had our regular profit. Because war orders were competitive, prices had to be figured closely, and today this situation is the same. Any unreasonable profit that a



Mr. Hill in the laboratory. He remembers when company delivered goods C.O.D. Friday to meet Saturday pay roll



manufacturer might wangle out of this war, automatically goes back to the Government in taxes.

The increase in business lowered our costs in keeping with the rule that increased production reduces overhead per unit of product, of such cost items as insurance, depreciation and the like.

At the same time, wages were rising, and we increased them; new employees had to be hired and trained, which is expensive; costs of some materials were rising; we had to buy consider-

able new equipment specially adapted to war work, and be prepared to scrap it because it could not be converted for normal production.

Nevertheless, we had a bigger business to work with. In effect, the Kirkhill Rubber Company of 1944 was dumped into our laps in 1940.

With a catch in it—if peace came before 1944, we would be dropped back just as suddenly, but with twice as many employees to think about, and we have always thought of our employees as partners in our growth.

Planning for peace

SO, what we did as soon as the situation clearly focused, was to put on four additional salesmen, and send them out to increase our sales of peacetime products.

We decided to use the resources of our suddenly expanded business to build permanent trade. When peace returned we would need a cushion to fall on. Everything that we could do, without slighting war work, to make that cushion larger, and softer, we did, and are doing today.

We soon found our "business as usual" sales growing to the point where it was necessary to make a decision

experience during the depression, we gave war work all the expansion it called for, and at the same time expanded our normal production.

Among the major rubber companies we are small people, dating back only to 1919, when the business was started with a couple of hand presses making rubber heels. Personnel consisted of myself, out of a job through the failure of a rubber heel company, and a couple of young men who shared the fortunes of a new venture. We hit upon an idea—selling rubber heels, not in fancy boxes, because we couldn't afford boxes, but by the pound, for shoe repair shops. It was a good idea, and rubber heels sold that way at a saving. But many a week we canvassed the shoe repair shops for orders on Monday and Tuesday, made the goods Wednesday and Thursday, and delivered C.O.D. on Friday, to meet the Saturday pay roll.

When the depression came along, in 1930, our business had grown into other products. Like everybody else, we were hard hit.

But along in 1931 the depression began to make some sense. People couldn't afford new shoes with rubber heels. But they could mend their old shoes, and fix their own kitchen faucets—we discovered a sudden demand for repair

provided increased production for normal goods without hindering war work. Even now, there are rubber factories equipped for "business as usual," and having extra production facilities. Their machinery is not suited to war production, and they have no intention of seeking war work, because they lack the capital and experience necessary.

If peace came suddenly tomorrow, we would not have to lay off one of our employees for at least six months—and then we would look around and find other possibilities certain to develop with the change back to "business as usual."

As the war work stopped, we could take back into our own plant a generous volume of normal production now being done for us by subcontractors. It is our business, built up through our increased sales effort. It forms part of our demobilization cushion.

Now, an interesting question will occur to the reader: What would become of the sub-contractors' employees who have been earning wages on that outside production?

Employees study for skilled jobs

WE take the attitude that this outside production is not merely our own, by right of development, but that it belongs to our employees, because they have been largely instrumental in creating the business.

To make an omelet, you must break eggs.

To fight a war, or even get ready to defend our country, it is necessary to change people around in their jobs, and be prepared to change them back again when peace returns.

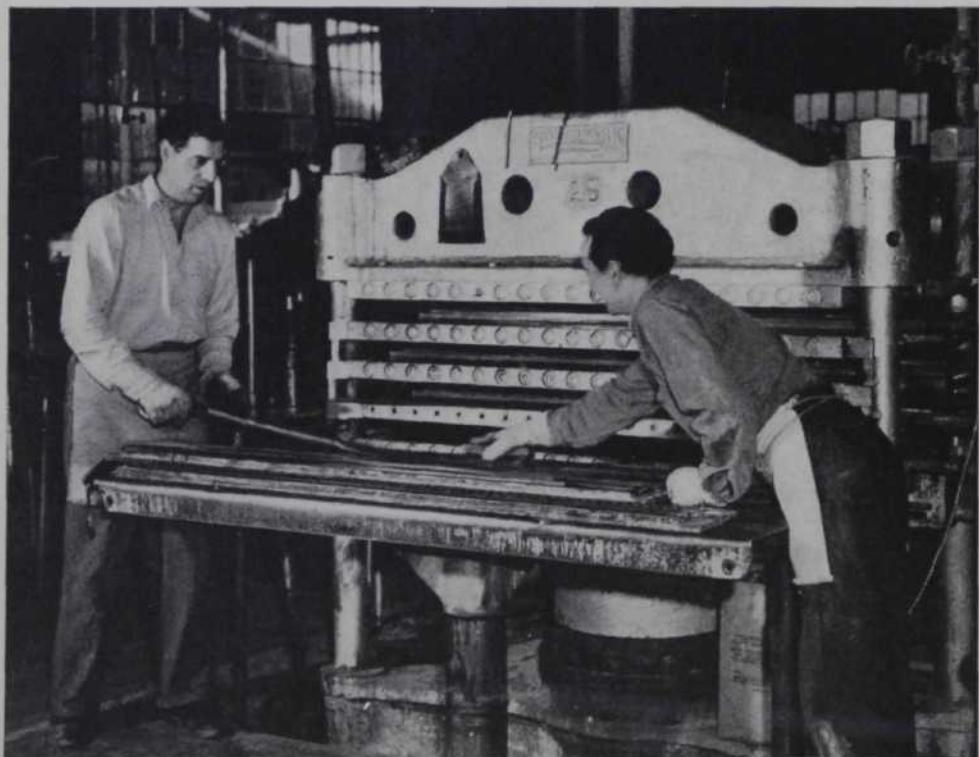
For war work, thousands of "specialists" must be mobilized, unskilled workers who can be quickly taught one operation, like riveting or welding in aircraft factories, and who do well under supervision.

Peace demobilizes these "specialists." They have acquired little skill in a trade, and must go back to unskilled work, unless they have prepared themselves by study for better jobs.

But hundreds of these "specialists" in the Los Angeles area are going to night classes to learn blue-print reading, mathematics, mechanical drawing, machine design. That will fit them for other jobs in allied industries if the war factories cannot keep them on the permanent force.

Our employees are keen about such self-improvement. They were that way long before we got a single war order because ours is still a personal business where everybody knows everybody. Many of our employees have seen it grow from small and anxious beginnings. We chose new employees for intelligence, ambition and willingness to

(Continued on page 76)



Machinery is kept busy as extra salesmen seek business which will provide a cushion when the emergency is over and defense orders are discontinued

between war work and normal work. Both were growing so fast that it became a question of putting capital and workers behind either one, or the other.

We found a way to have our cake and eat it too. Taking a tip from our

parts of all kinds and developed them so successfully that, by 1933, we were running full capacity again, and letting out orders to other rubber factories with idle machinery.

And this was the way we have today



Can the Nation Afford Cheap Money?

By ARTHUR WHIPPLE CRAWFORD

CONSEQUENCES of the fiscal policy

which has reduced interest rates are here revealed in terms of the stakes of institutions and individuals. Lenders, borrowers, creditors and debtors are all concerned with the hiring price of savings

BECAUSE of the excess reserves, interest rates have fallen to unprecedented low levels. Some of them are well below the reasonable requirements of an easy money policy, and are raising serious, long-term problems for the future well-being of our charitable and educational institutions, for the holders of insurance policies and savings accounts, and for the national economy as a whole." —*From special report to Congress by the Board of Governors of the Federal Reserve system, the Presidents of the Federal Reserve Banks, and the Federal Advisory Council, December 31, 1940.*

"The so-called easy money policy has been followed since 1929 upon the the-

ory, as the Council understands it, that easy money would act as a stimulant to business and that it would cause business to borrow and impel banks to lend.

It has done neither; but it has done and is doing undeniable economic injury to the whole savings class of the American people." —*From recommendations by the Federal Advisory Council to the Board of Governors of the*

Federal Reserve system, June 6, 1939.

"The prolongation of the easy money policy which has been imposed upon the country for 11 years is operating to weaken the economic structure at most essential points and this policy should now undergo the gradual but determined correction appropriate to so fundamental and all-pervading an influence." —*From resolution adopted at annual meeting of the Chamber of Commerce of the United States, May 2, 1940.*

These quotations are typical of the pronouncements by the banking authorities and important business groups on the subject of "cheap" or "easy" money.

A steadily increasing realization of injurious consequences from the abnormally low interest rates now in effect is being reflected in demands that Congress and the Administration do something about it. Before Congress are recommendations from the Federal Reserve authorities for legislation to bring excess banking reserves under control to avert dangerous inflation possible under the defense program and to allow a moderation of the existing cheap money policy. There is recognition, however, that the proposed legislation alone cannot be effective in creating a more moderate condition of easy money unless administrative policies of the Treasury and various gov-

ernment credit agencies as well as of the Federal Reserve system are in accord with such an objective.

Many new problems have grown out of governmental policies of recent years. Those created by cheap money rank with the most perplexing. Against possible advantages from policies conducive to an abundance of credit at very low interest rates must be balanced disadvantages with widespread ramifications.

Supposed advantages include:

1. A stimulus to industrial activity.
2. A boon to farmers, home owners and other debtors.
3. Promotion of a more equitable distribution of wealth and income.
4. A low cost of borrowing to finance

Treasury deficits, heretofore due to shrinkages in revenues and expenditures for social and economic purposes and now unavoidable under the defense program.

Recognized disadvantages, accentuated by the extreme degree to which the policy of monetary ease has been carried, include:

1. A serious shrinkage in the income from savings, insurance, trust and endowment funds with consequent hardship to individuals and to educational and charitable institutions.
2. A discouragement to thrift and an incentive to dependence upon governmental beneficence.
3. An undermining of the American system of free enterprise because of the low return from investments in private industry in a period of increased willingness of the Government to enlarge its sphere of responsibility in finance and business.
4. A growing indifference on the part of the public to huge governmental expenditures and mounting debt by reason of the apparent ease with which money may be borrowed at an exceedingly low cost.
5. A menace to the banking system, which is less able to fulfill its obligations to the public because of low profits and consequent greater risk, and which may suffer heavy losses in values of government securities and corporate bonds if interest rates return precipitately to a higher level.
6. An increase in inflationary dangers because of the existence of huge excess banking reserves.

Encouraged low interest

FOR more than a decade a policy of easy money has prevailed in the United States. In the latter part of the Hoover Administration, when restrictive policies of the 1928 and 1929 speculative boom were reversed, the purpose was to ease a tight money situation and check the spiral of deflation. Subsequently, as the Roosevelt Administration came into power, a policy of cheap money was maintained as a positive force designed to stimulate business activity, relieve the burden of debt, promote the New Deal philosophy of a better distribution of wealth and income, and facilitate the financing of Treasury deficits. Simultaneously, the easy money policy was generally adopted in other countries.

The existence of large excess reserves in the banking system is recognized as the chief factor which has contributed to the steady decline in interest rates in recent years. Originally the Federal Reserve authorities were accustomed to build up these reserves through purchases of government securities in the open market and through funds lent to member banks by the Reserve banks at reduced rediscount rates. Since 1934, however, the inward flow of gold and the purchase of silver have been responsible for the bulk of the new reserves. Meanwhile, numerous government agencies, including the Treasury, the Reconstruction Finance Corporation and various agricultural, housing and other credit bodies, have

(Continued on page 82)



Perseverance Tames Yucca



Only 12 yucca trees out of 20,000 are fit for commercial uses

TWENTY-FIVE years ago J. P. Gregg, Redlands, Calif., bought an old veneer machine that had been used for making berry boxes, and began making tree wraps from the yucca wood of the Joshua trees, native of the Mojave desert. His hope was to find a suitable substitute for the heavy oiled paper which he had been using for tree wraps, but which the World War made prohibitive in price. He soon foresaw a wide market for yucca products. He now uses an average of 100 tons of Joshua logs a year.

At the beginning, one of the big difficulties was getting suitable Joshua trees. Although millions of Joshua trees grow in the Mojave desert, only ten or 12 trees out of every 20,000 are big enough for his purpose. He soon found that the railroads own nearly half the land on the Mojave desert, and the Government the remainder. The railroads won't sell the trees except off thousands of acres at a time. Gregg had no money for any such purchases. The Government won't sell trees at all because they are a flowering plant. Gregg had to buy his trees from homesteaders, often driving long distances searching them out. Then the trees had to be transferred to his factory, in those days by wagon team. Now he buys large acreage of trees at a time, and contracts the hauling of them.

The Joshua tree is a member of the yucca family, which comprises about 30 varieties, all with fibrous wood. The Mexicans and Indians have long used some varieties of yucca for crude tie and rope material and for making baskets. The fiber of the Joshua can be veneered, rolled and stored indefinitely, then unrolled and flattened out without cracking. Another feature is its lightness.

Since yucca wood is fibrous, light and pliable, it is particularly suitable for certain items, like the tree wraps, of which Gregg made 30,000,000 last year; being fibrous the yucca admits light and air, while its pliability allows it to be wrapped about the trees without splitting, and makes it better able to withstand weather conditions. Surgeons have called yucca "Nature's own splint material." Being light, it is comfortable; pliable, it takes the shape of the limb applied to but will not bend lengthwise; porous, antiseptics can be applied through it, perspiration does not affect it, and it offers no resistance to the X-ray. The Expan Company plant makes millions of these splints yearly. Other items manufactured are post cards, book bindings, Boy Scout fire friction sets, and wood for model airplanes. At present experiments are under way to find other uses for the yucca wood.

—A. V. DUChANE



Search for tree wraps started a \$30,000 business



Twice burned out, Gregg salvaged a veneer machine —began again



Called "Nature's splint," yucca moulds to a broken limb, then stays stiff

Market Gleanings

Industry Promotion Review . . . "Swing" on the Picket Line . . . Better Than FSCC

Every industry wrestles with its special public relations problems and every year new cooperative, custom-built programs are launched to overcome them. A partial survey made recently disclosed a great variety of objectives being pursued with the use of paid advertising, press agency and other means of public education. Some campaigns are of recent origin, others carry on older strategic plans. All are under trade association sponsorship.

The leather glove manufacturers are trying to induce men to wear gloves as well to enhance their "front" as to keep their hands warm. Women are persuaded to return to leather in lieu of fabric or knit gloves. A third objective is to sell the thought that "imported" doesn't spell better quality when applied to gloves.

Bakers are still combatting what they say is the superstition that there is any conflict between white bread and long life. The American Institute of Baking publicized a speech by Tom Smith before the American Restaurant Association contending that the good old practice of "sopping" up gravy and juices is both nutritionally sound and socially respectable.



"Gas serves you better" is the American Gas Association's slogan. Special emphasis in its industrial tug-of-war with the electrical appliance industry is given to the advantages of gas for cooking.

The American Institute of Laundering continues its efforts to neutralize misconceptions derogatory to power laundry sanitation, also to promote its Textile Seal of Approval for fabrics that are manufactured and dyed with an eye to their launderability.

Meat packers are after the scalps of the food faddists and their alleged inaccurate comparisons of food values in a pound of steak and various other human fuels. Still more difficult is the task of squaring themselves with consumers kicking about the high prices of meat and livestock growers objecting to the low prices of cattle, hogs, sheep, poultry, etc. That the packers are only an instrument of supply and demand fluctuations seems elementary but is not generally appreciated.

The Association of American Railroads

continues its notable campaign to impress its claim that railroads are no less progressive than their younger competitors. Railroads also are asking for a little less kicking around from Government, as well as fair play in the race with other forms of transportation.

Members of the Institute of Life Insurance offer facts and advice to insurance policyholders groping in the fog of fiscal uncertainties and threatened inflation for financial security of their own making.

Chain store operators have the perennial problem of watching Representative Patman and holding tightly onto their pocketbooks. They have "gone to the country" in an earnest effort to make common cause with farmers and other reserve forces in the army defending capitalism.

Milk dealers through their associations disseminate economic truth and controvert agitation for lower prices by consumer groups urged on by leaders who would be satisfied with nothing less than free milk.

Brewers are concerned at the onus placed upon them by a disreputable ten per cent of beer purveyors. Their cooperative promotion is aimed at dissociating the product from this objectionable environment.

The benefit of a free press to a free people is the intangible commodity which the organized newspapers of the country seek to sell. Many of them believe they see a cloud overshadowing that freedom. Their No. 1 public relations job might be defined as that of making at least as much noise as Secretary Ickes.

Cigar makers admit privately that their chief headache is the growth of the cigarette smoking habit. Publicly they are planning ways to restore cigars to a social status above that of something for prize-fight managers and politicians to smoke. From a high consumption of 8,000,000,000 cigars in 1920, the industry dropped to 4,500,000,000 in 1938, but 1940 is estimated to have seen a considerable turn of the tide back toward smoking "for males only."

The radio music war between the National Association of Broadcasters and the American Society of Composers, Artists and Publishers (ASCAP) has settled down to the status of an endurance strike, with the independent song writers, organized under radio station auspices as Broadcast Music, Inc., performing effectively as strikebreakers. Both sides claim to be winning the public's favor. N.A.B. says a survey of 125 stations in all sections of the country showed only 147 complaints from their millions of listeners. One check indicated an actual pick-up in

attention to B.M.I. musical programs. Both these claims are denied by ASCAP.

B.M.I. admits that the radio public is having to worry along deprived of such syncopations as "Who's Afraid of the Big Bad Wolf?", "Somebody Stole My Gal," "Three Little Fishies," "Yes, We Have No Bananas," and a long list of other "hot" numbers. But it offers the consolation that "an estimated 80 per cent of the world's great music is in what is known as 'the public domain,' or belonging to the public." B.M.I.'s catalogue includes some 200,000 musical compositions. In addition, there are 400,000 numbers controlled by other societies of composers and publishers. ASCAP cannot interfere with the broadcasting of more than 500 operas, besides many famous popular songs such as "Auld Lang Syne" and "Home, Sweet Home." Many of the earlier works of Victor Herbert, George Gershwin, John Philip Sousa, Sigmund Romberg, Jerome Kern and Ethelbert Nevin are still available.



ASCAP leaders spread a far-flung "picket line" of members listening to all programs for violations of the Society's copyright privileges. Broadcasters took extreme precautions to avoid unwitting infringements, even to shutting up their football announcers at the New Year's Day bowl games in sound-proof booths to prevent the strains of ASCAP airs from riding the kilocycles.

The controversy started with the ASCAP "music trust" demanding the payment of flat fees from radio stations for the right to broadcast its tunes. N.A.B. offered to pay if and when they were used, and claimed that the ASCAP terms were higher than the trade would bear.

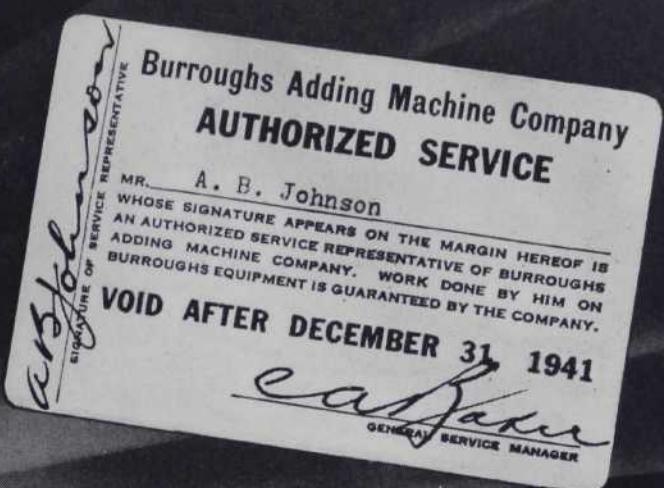
Farm surplus disposition by natural as opposed to artificial means is being attempted in a project promoted by Graham Patterson, publisher of *Farm Journal and Farmer's Wife*. Without the use of food stamps or any other device of governmental paternalism, Mr. Patterson's organization relieves surpluses and benefits consumers.

Agricultural market data are collected from the Department of Agriculture and various private sources, and this information passed on in bulletins mailed at regular intervals to large direct users of farm produce, such as hotels, restaurants, bus lines and manufacturers operating dining rooms for their employees.

Surplus items as listed by states inform large consumers what foods they can feature at bargain prices. What is more important, this stimulates consumption of the surplus products and prevents their prices being depressed below cost of production. About 140 firms cooperate with the *Farm Journal* plan, to their own advantage as well as that of farmers.

—FRED DEARMOND.

THIS LITTLE CARD OFFERS SO MUCH PROTECTION TO BURROUGHS USERS



Only a Burroughs service man, directed and paid by Burroughs, carries this 1941 credential card. It is your assurance that he is qualified to service your Burroughs equipment because—

He is trained at the Burroughs factory.

He is instructed regularly about the adjustment, inspection and other service requirements of all Burroughs machines, including the latest models.

He installs only genuine Burroughs parts.

His work is *guaranteed* by Burroughs.

Burroughs service, reasonable in price and as near as your telephone, is one of the major reasons why business enterprises make their decision in favor of Burroughs equipment.

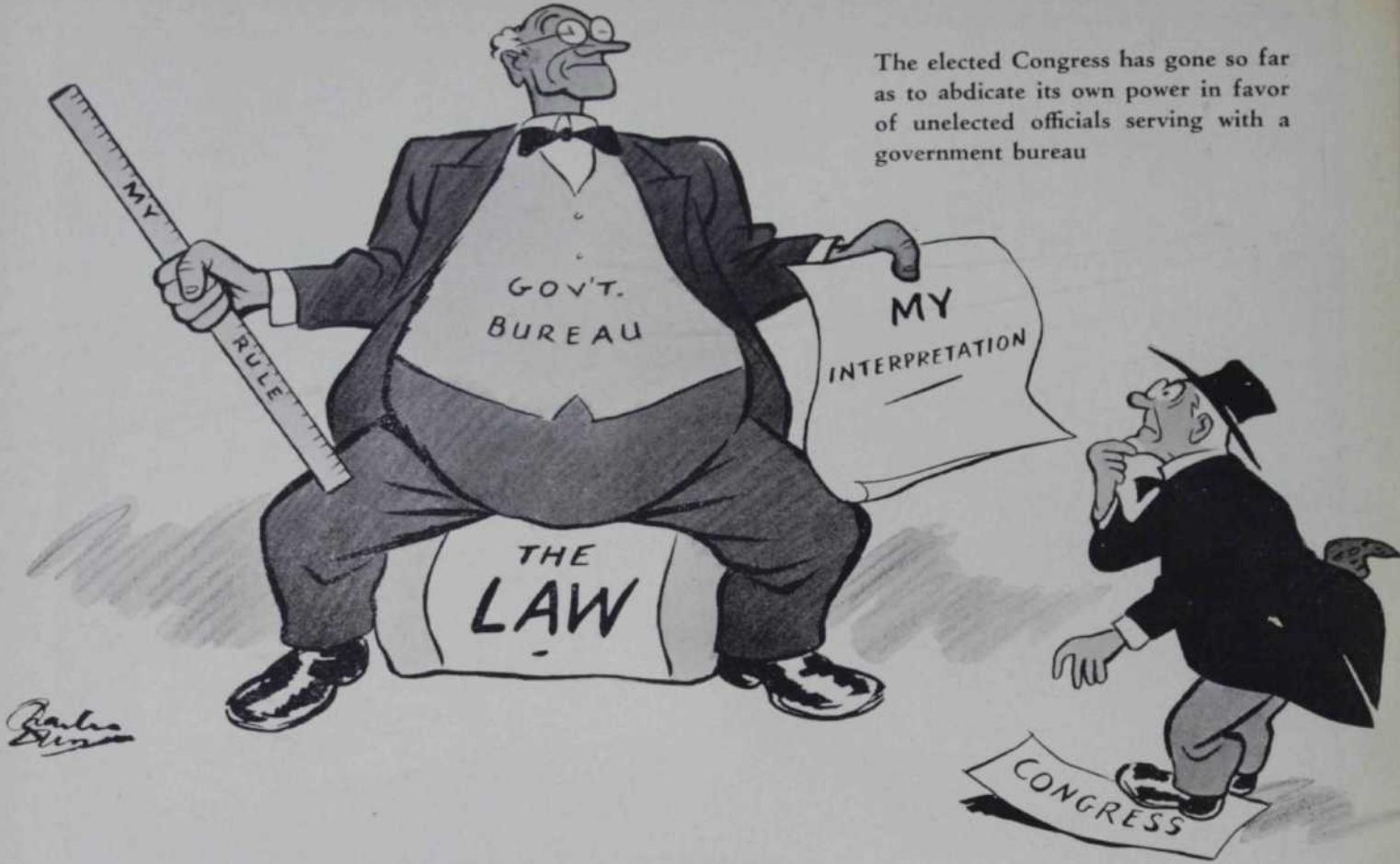
BURROUGHS ADDING MACHINE COMPANY, DETROIT



Burroughs maintains more than 450 service centers. Uniformly efficient local service—readily available to every Burroughs user—extends to every county in the United States, to every part of Canada, and to foreign countries.

Today's Burroughs

DOES THE WORK IN LESS TIME—WITH LESS EFFORT—AT LESS COST



Unelected Rulers Shape Our Laws

By J. GILBERT HILL

AMERICAN lawmakers, from city councilmen to congressmen, apparently are unable to express themselves in the English language.

Nothing they write, nothing they say, nothing they support by vote, has any meaning to citizens who elect and pay them, until it has been "interpreted."

The interpreters, therefore, not those charged with making the laws, are the real legislators in this country. Unlike elected officials, these legislators owe no allegiance to—in fact, have no interest in—either ordinary voters or taxpayers who foot the bill for both visible and invisible lawmakers.

Recently a speaker for producers of certified seed came straight from Washington to explain the new law designed to protect the farmer against inferior seed.

"Of course," he said, "we've seen the law. But we do not know exactly what effect it will have on individuals producing seed in Oklahoma until we get the rulings and interpretations of the Department of Agriculture."

The law was written, passed, signed,

APPARENTLY those who are elected to make our laws are unequal to the task or too lazy to see it through. As a result, the statute books are filled with language which unelected officials must "interpret" before a citizen can tell what he must do to obey

and delivered. But it still had to be translated into English.

A freshman Congressman told his constituents, a Real Estate Board, about a hearing before a Senate committee on an appropriation bill. The witness represented a government agency asking for more money for a specific purpose—let's say, the purchase of land. A Senator leaned back and asked:

"Don't you know, as a fact, that the purchase of land for which you are asking this money is prohibited expressly in the Act of Congress creating your department?"

"No, sir," the witness said, "our attorney says the money can be used for that."

"The hell he does," the Senator exploded. "I wrote that bill and I wrote

The elected Congress has gone so far as to abdicate its own power in favor of unelected officials serving with a government bureau

that provision against buying land into the law myself."

"Our attorney says," the witness repeated, unperturbed, "that it is the intent of Congress that we use the money for the purpose outlined."

Recently a business man complained bitterly concerning administration of the federal income tax law, insisting that an attorney's ruling has kept at least ten men out of productive employment for about five years.

This man paid about \$50,000 in taxes under protest. He didn't believe he owed it. But the government attorney ruled that he did. The fight went to court. The Government lost.

But the next year exactly the same question arose in a slightly different form. The Government tried to collect again. For five years, he says, he has



What's farming got to do with life insurance?

MORE THAN 30,000,000 people live today on American farms.

Their farm lands, buildings, implements, and livestock are said to be valued at over 43 billion dollars . . . or more than 10 times the total investment of the entire American steel industry. Gross annual farm income is estimated at over 10 billion dollars . . . or more than 3 times the total value of all the automobiles and trucks produced in this country in 1940.

What has all this to do with life insurance? Simply this . . .

The money which a life insurance company invests for the benefit of its policyholders must be invested safely in sound, permanent securities. Farming is still America's largest single enterprise, feeding a nation and supplying a substantial portion of the raw materials used by industry. Farmers also constitute a major market for industrial products.

Because of these and other factors, first mortgages on fertile farm lands are a sound investment for life insurance companies.

Metropolitan today has over 81 million dollars invested for the benefit of its

policyholders in about 13,000 farm mortgages.

These mortgages are selected with extreme care by Metropolitan's Farm Loan Division. This division consists of about 550 employees, including land appraisers, financial experts, agricultural specialists, and others.

Of course, even the best farmer's efforts can be offset by economic conditions over which he has no control. For example, in 1921 American farmers experienced a severe recession of prices and, before agriculture recovered from this, the depression of the 1930's set in.

Naturally, in such periods of economic stress, it is inevitable that some farmers are unable to meet their mortgage obligations. In these cases, Metropolitan has been very reluctant to exercise its legal right to foreclose, and does so only when forced to do so for the protection of its policyholders.

When foreclosure cannot be avoided, Metropolitan seeks to rehabilitate the farm and to sell it to a "dirt farmer." In 1940, Metropolitan sold 1,164 of its Opportunity Farms. Of this number, 1,061

were bought by farmers, 726 of whom were tenant farmers who are now becoming farm owners under the Company's special tenant purchase plan.

As a result of its farm loan policies, Metropolitan has been credited by agricultural authorities with having made substantial contributions to better farming methods and to the general welfare of America's farming population.

COPYRIGHT 1941—METROPOLITAN LIFE INSURANCE CO.

This is Number 35 in a series of advertisements designed to give the public a clearer understanding of how a life insurance company operates. Copies of preceding advertisements in this series will be mailed upon request.

**Metropolitan Life
Insurance Company**
(A MUTUAL COMPANY)

Frederick H. Ecker,
CHAIRMAN OF THE BOARD

Leroy A. Lincoln, PRESIDENT

1 MADISON AVENUE, NEW YORK, N. Y.



fought that levy and won each time.

"It costs me about \$25,000 a year to beat the tax," he insists. "It is the same question in a different form every time."

"My attorney says we don't owe it and the courts agree. But we have to prove it every year because there always is another administrative opinion. I've even offered to pay the court costs directly to the federal treasury to keep out of court. But they won't do that."

"So, we spend \$25,000 a year on court costs and attorney's fees that would just about hire ten good men in my business."

Local bureaucrats, too

WHILE these, undoubtedly, are one-sided stories, American pioneers learned many years ago that where there is smoke there is bound to be fire. These are federal instances. But every state, every city—even every school district—has similar situations.

Many a state legislature has repealed laws regulating labor unions, trucks, railroads, utilities, or working hours, when it was proved to the satisfaction of the people's lawmakers that the laws did more harm than good. Many times the legislature comes back, finds the same problem upon its door step, and spends most of another long, expensive session trying to repeal or amend a law simply because the legis-

lature's previous action has been nullified largely by so-called "administrative rulings."

In fact, America's illegitimate lawmakers, not those elected, are most to blame for many, if not all, of the much publicized "uncertainties" of government which handicap business. Bureaucracy feeds upon power—and the opinions of attorneys for bureaus provide that power.

Almost everyone believes there are too many laws, but they are few and innocuous compared with the thousands of rulings under which business and private life are carried on in America today!

The first illegitimate lawmakers undoubtedly were created with a very legitimate purpose. Some elected or appointed official, given the job of administering a very technical statute, such as a tax law, needed legal advice. He hired an attorney.

In so doing, he merely followed the usual procedure of business firms. But, in most instances, there is no provision in the law for such service. In fact, the law of most states provides that legal advice shall be given by the Attorney General, usually an elective official. Even the federal Government has such a separate legal department, although its chief is appointive.

However, the administrative officer feels the need of more help than the Attorney General can provide. He cre-

ates a job under his general powers. The attorney is hired, paid, and holds his job at the administrator's pleasure.

The Attorney General almost always is glad to be relieved of the work and the responsibility. Most of them have too much to do anyway. Undoubtedly, Congress, state legislators, city councilmen, and other lawmakers have winked at the appointment and created it later, indirectly, by appropriating money specifically for the job.

Undoubtedly, the original purpose in almost every instance is legitimate. But the danger arrives when some enthusiastic government officer is carried away with the importance of his job. He feels the "intent and purpose" of the law is for him, and his department, to do greater things. So, he calls in his own private, but publicly paid, attorney and explains the situation.

If the administrator happens to be a housing official whose heart bleeds—at public expense—for all the poor persons without indoor toilets, the problem probably will be like this:

Jim, Fancytown can't raise the money to buy the land we need for that slum clearance project. They need it. I know the law says we can't buy land, but a real estate man down there will lease us ground for 99 years. Can't we pay rent?

Stretching the law

OR, if the official happens to be a tax collector, state or federal, with a quite understandable suspicion of all taxpayers trying to keep as much of their own property from legal confiscation as possible, he probably will say:

Jim, Old Skinflint is trying to beat us out of that levy on his profits. He says they're commissions and he is entitled to make deductions. He's got a lawyer who says he's right. What about it? He can afford to pay and we think he ought to. It won't hurt him. Let's make him do it!

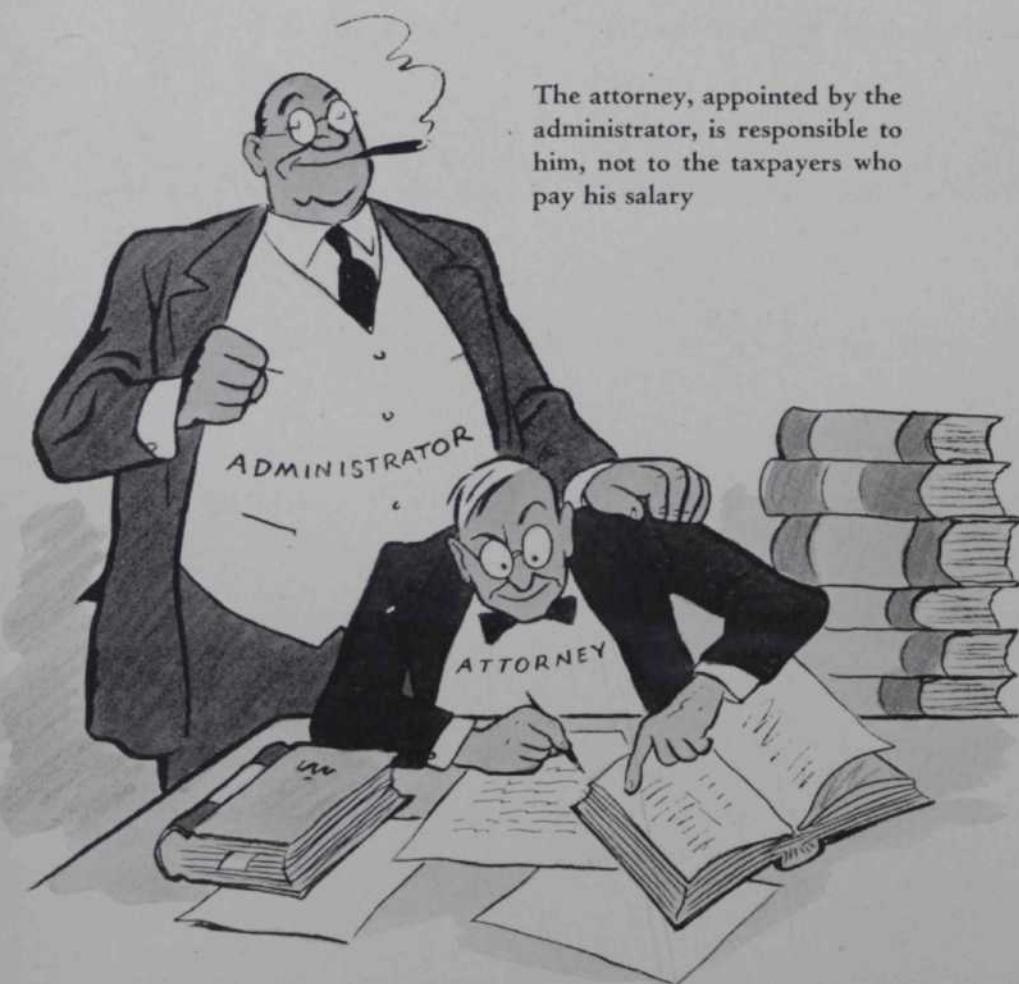
Or, in the case of the state school board, the conversation will go like this:

Jim, the law says we can't use state funds to buy school buses. But the school board out in Bushwhack District wants to rent some and let the rent apply on the purchase price later. They're pretty good boys, need the buses, and we need the votes in that district to "handle" the legislature. Can't they do it?

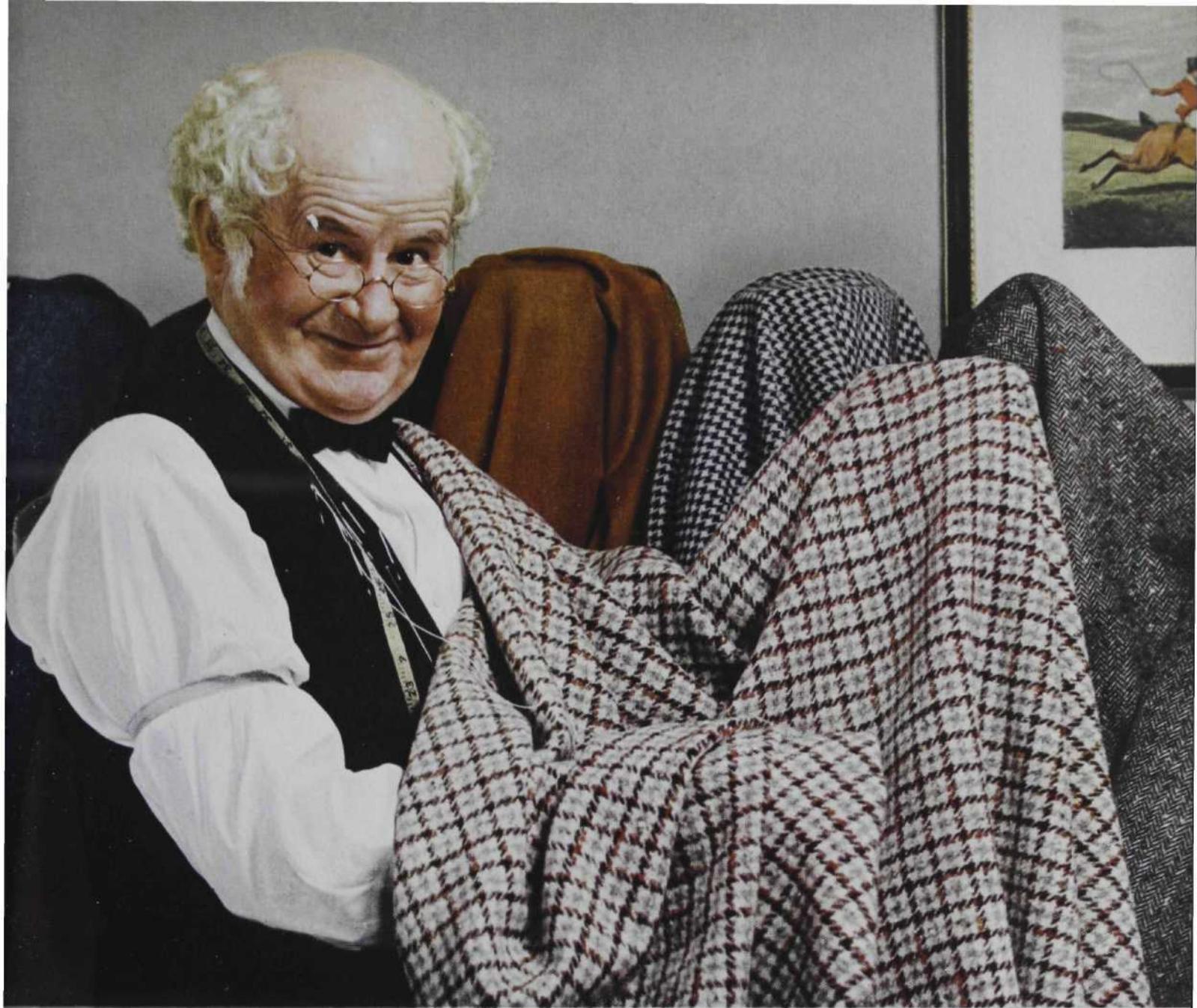
Jim, if he wants to hold his job, usually can find a way which he hopes a court will approve, if it comes to that. If Jim can't, then the administrator can find another attorney who will make the ruling and defend it in court, even though he loses eventually.

Such opinions, issued in just such circumstances, have the force of law even though no elected legislator ever heard of such a thing. If a citizen doesn't like it he can take it to court, of course, at terrific cost in time and money.

In the case of the taxpayer, it may
(Continued on page 74)



The attorney, appointed by the administrator, is responsible to him, not to the taxpayers who pay his salary



Color makes a difference, doesn't it!

Suppose that by some freakish whim of nature all the color about us should suddenly disappear! What a drab world this would be. We would then appreciate, because of the lack of it, how much color really means to us.

For color gives our surroundings life and warmth... identifies and distinguishes things for us... expresses our individual tastes and temperaments by the tints and shades of the clothes we wear, in the home furnishings we select, or the lustrous hues of a motor car that meets our favor.

We enjoy color for itself alone and for the vitality it gives to objects about

us—it is the essence of life in countless everyday things.

Fortunately, thanks to the enterprise of the color chemists, colors are becoming more varied and effective than ever before. A leader in this work is the Calco Chemical Division of American Cyanamid Company. Practically nothing that uses color escapes its attention. As one of the world's largest manufacturers of these products, Calco is constantly discovering, developing and adapting dyes that improve and bring variety to the colors in thousands of products which you see or use.

And this is only one of the many ways in which Cyanamid chemistry enlivens man's environment, serves his basic needs and adds to the fullness of his life.



American
Cyanamid Company

30 ROCKEFELLER PLAZA, NEW YORK, N.Y.



Navy's Martin Dive Bombers CARRIED 1000 POUND BOMBS TEN YEARS AGO

Built to Naval specifications back in 1930, Martin Dive Bombers made 6,000-foot vertical dives with a terminal velocity of 4 miles a minute. These were the first ships to carry thousand-pound bombs. They performed pursuit acrobatics, including pull-outs with 1,000-pound bomb affixed. Even in 1930 their performance characteristics were very close to those of many of the dive bombers of other countries today! Five squadrons of these Martin Dive Bombers were built for the Navy. Although Martin is today building only larger aircraft, U. S. Army and Navy air forces have been continually developing equipment and training men in dive bombing, until today our dive bombing aircraft are the finest in the air—our men the most accurate dive bombers the world has known.

What Is Martin Doing Today? . . . Prepared for many years to swing quickly into mass-production of larger type military aircraft, the giant Martin Plant in Baltimore is now working 24 hours a day . . . turning out bombardment aircraft for our Army

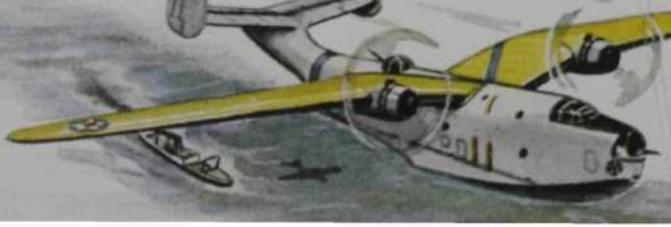
and Navy. The Martin Company's pioneering in the straight-line production of military bombers . . . long activity in the field of pre-employment and employee training for technical aircraft production work . . . actual experience in rapid plant expansion for war orders . . . enabled the Martin Plant to go immediately on an emergency basis to provide aircraft for our country's protection.

The fact that Martin has been working almost continuously on Military Aircraft, since the first bomb dropping experiments of the U. S. Army were made from a Martin Airplane in 1913, has made this Company a vital factor in building our country's Air Forces.

What of Martin's advancements in civil aviation? Temporarily they must be set aside. But important technical developments in aircraft design and manufacture are accruing from intensive preparations for national defense. Applied to commercial use, these developments will help make Martin over-ocean liners of the future far surpass in size, speed, range, luxury and capacity, the finest that the world knows today.

THE GLENN L. MARTIN COMPANY, BALTIMORE, MD., U. S. A.

New MARTIN Navy Patrol Bombers now being delivered in ever-increasing numbers. A veritable flying destroyer, self-sustaining at sea, with complete living accommodations for the crew, capable of long-range operations in conjunction with our fleet, or on independent missions of patrol or combat.



Martin AIRCRAFT

Builders of Dependable



Aircraft Since 1909

TRADE

MARK

Saving a City Is Good Business

By M. S. MUNSON

CITIZENS who fear that their own city is slipping can profit from the example of Hoquiam whose business men changed gloom into optimism by rebuilding

A YEAR AGO, visitors to Hoquiam, Washington, saw along the main street the decayed fangs of out-of-date buildings. Today this Pacific Coast plywood city greets its callers with a smile.

The business men of Hoquiam are smiling too, for they have found that a renovation program sponsored by the Chamber of Commerce not only has beautified their establishments, but resulted in vastly improved sales volume. In the early stages of the campaign, the merchants had to be sold on the need of renovation, today they demand that the civic rejuvenation project be continued indefinitely.

The "Save Simpson Avenue—and Hoquiam" campaign was designed originally to remove blemishes from the main business street. This is being accomplished to the satisfaction of all, and the most pleasing aspect of the program has been its economic effect upon the city. Fed, in part, by the dollars used for construction, Hoquiam's business machine turned at record speed throughout the year.

Industrial employment figures rose to an all-time high in 1940. Twelve per cent above the figure for the previous year. Bank transactions were the largest in a decade. Home building increased 317 per cent. Home repairs were up 108 per cent. Several new businesses entered town.

Business men of Hoquiam are happy, with a modernized business district, improved port facilities, and a brand new air base. They especially delight in answering queries from other Washington cities on how they put across a drive which is remodelling the buildings of an entire street. Here is the story they tell—a story of interest to thousands of small cities similarly situated:

Driving power behind the "Save Simpson Avenue—and Hoquiam" campaign was furnished by Cecil E. Jenks, Vice President of the Peoples National Bank of Washington, and President of the Hoquiam Chamber of Commerce. A man with an *idea*, he organized the campaign and sold his revitalization program to his fellow business men. Jenks' Chamber associates like to pun on his name, saying "Cecil certainly put the 'Jenks' on obsolescence."

The "Save Simpson Avenue—and Hoquiam" campaign was severely handicapped by the failure of previous drives. The clean-ups were periodically heralded in the local press, launched with due ceremony and then, after minor successes, allowed to sink quietly out of sight amid the town's eye-



C. E. Jenks, C. of C. Pres.: "The job had to be done as a whole. It was."

sores. Everyone expected the new effort to come to the same "inconclusion." Said Mr. Jenks:

In studying the past drives, I realized that we had used the wrong approach. We had sought to remove dilapidated houses in the residential areas or to repair vacant buildings. But I had only to look down the main street from my office window to see that the heart of Hoquiam's trouble was not its residential district, but its business district.

Mushroom business growth

HOQUIAM'S business section mushroomed into existence between 1880 and 1900 and added shoots sporadically until the start of the great depression. The buildings were designed, for the most part, to house the saloons, dance-halls, and general stores of a lumber boom-town.

As Hoquiam developed into a plywood and pulp city and its port facilities were enlarged, the ecology of the business district changed, but the buildings remained the same. Retail firms, stocked to supply the needs of plywood men, pulpmen, fishermen, cannery workers, and tourists, replaced saloons and dance-halls, but the new merchants did not build new establishments. Like hermit crabs, they moved into the empty shells of businesses they replaced, regardless of how little the design of the buildings suggested the type of merchandise sold.

Hoquiam's windows were displaying



J. P. Peterson, General Contractor: "Construction costs had to be cut."

1940 merchandise in the time-worn stores of 1900.

"The job of renovation was too big to tackle piecemeal," says Jenks. "At a Chamber meeting it was decided that all of the avenue would have to be modernized or none of it. A single new store front would only serve to emphasize the rundown appearance of all the other old buildings. We decided to sell the merchants of the whole street on the benefits of bringing their stores up to date."

The cooperation of the Harbor Plywood Corporation, a major local industry, was solicited and obtained. Sensing the importance of the campaign to the city, and the example that would be set for many another city, Harbor Plywood went "all out" in its help. Their photographer took pictures of every building on the Simpson Avenue business district—candid shots which showed the dingy façades, the poor display facilities of the show-windows, the nickle-and-penny atmosphere of the entire street.

Working from photographs, the Harbor Plywood architect drew up plans for improvement of the façades. Individual designs were coordinated so that not only were the separate buildings modernized but the jobs coalesced to eliminate the natural asymmetry which had resulted from boom-town growth.

Plan for a new street

ON PAPER a new street was created. A street of long, straight lines, of ample window space; a street of dazzling storefronts which made window displays stand out and emphasized shop signs. It was the type of street on which people think in terms of shopping rather than reminiscing on the more romantic days of Paul Bunyan.

Photographs of dilapidated realty, designs for reconstruction, supporting arguments, and a definite plan of action were assembled into a portfolio. Mr. Jenks called business men of the avenue together, displayed the graphic evidence, and presented the plan. Individual construction costs were presented as being secondary to the more appealing civic idea of saving a street—and city. The need of a general reconstruction movement was first demonstrated to be imperative.

"Having sold the merchants on the need for the program," says Jenks, "it was then necessary to convince them the plan was within the means of a city which was scarcely enjoying prosperity. We pointed out that each job improved the neighboring property, since the proposed designs blended into



Herb Root, Paint Dealer: "One job sells another. The campaign sold a lot of paint in places remotely connected with it."

each other. It was necessary to plan construction costs for the lowest common denominator. The expense of renovating was shown to be low enough for any going concern to meet."

One of the smallest establishments on the street—a beer parlor, came in first. The sale meant a lot. From it, the movement snowballed down Simpson Avenue until it took in store after store.

The method used in selling was simple. Whenever a merchant was serious in his desire to modernize, the Harbor Plywood architect was ready to help, and he, in turn, summoned whichever building contractor the business man wanted. Working together, the three created a plan for a "new" store—a plan which blended the redesigned façade into the general scheme for the avenue, but permitted the store to emphasize its personality. Interiors were remodelled on a functional basis, utilizing the space which had formerly been wasted.

It was a case of follow the leader. Once the work started, one job sold its neighbor. The "Save Simpson" movement swung down the avenue like a parade, picking up members as it went. It is still growing, although many of the buildings on Simpson Avenue are re-done, or in course of construction.

A major factor in keeping the modernization ball rolling was the heart, as well as the economic lift, which the reconstruction program gave the city. By stepping up business activity, it put new dol-

lars in the tills of all the merchants. This permitted the smaller establishments to finance repairs which in turn increased their business.

Stimulated other business

BUSINESS was not the only thing improved. The "Save Simpson" campaign was a stimulant to public morale. Hoquiam had had the jitters in 1939. Creation of the Olympic National Park had locked up large stores of timber previously counted on to supply local mills. Many citizens feared that their city would become a "ghost town" within a decade. When the business men entered an extensive reconstruction program, the townsfolk were relieved. When the mayor and his aides announced that the Government would build an improved \$500,000 air base for defense purposes in Hoquiam, citizens were optimistic for the future.

"Hoquiam is going ahead and has taken a permanent place in the scheme of things," they reasoned. "The merchants wouldn't be sinking money into their businesses. It indicates a solid future for our town."

This new confidence was reflected immediately in a wave of home-building. The number of houses in the city's latest addition doubled in six months. The City Council announced the opening of another residential district for the spring of this year. More than three times as many homes were built during

(Continued on page 48)



Architect H. K. Wilson: "It was important to keep costs within means of landlords"

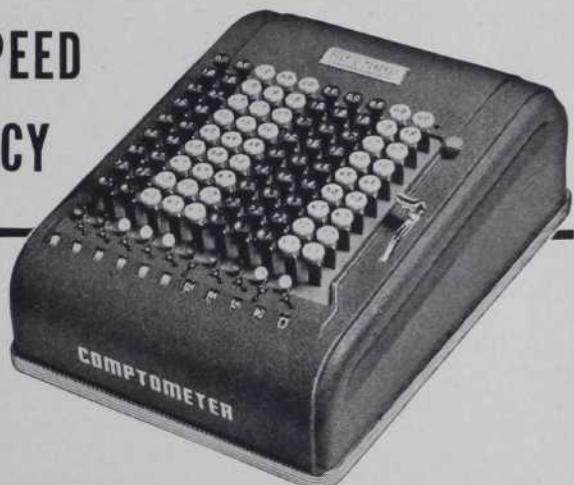
TO AN ANGLER**"MICKEY FINN" means a lure**

The "Mickey Finn" is a "streamer" fly made from red-and-yellow-dyed deer hair. Fished "wet" (below the surface), it's supposed to imitate a minnow. Although frowned upon by dry-fly purists, the "Mickey Finn" is a popular lure with trout-fishing American anglers.

**TO A BUSINESS MAN**

"COMPTOMETER ECONOMY"
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for GREATER SPEED
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NO CIPHERS appear on Model M answer dials unless they are part of actual answer! The answer, for example, used to read 00000054520. Now it reads 54520.



Many executives regard the Comptometer as "the perfect adding-calculating machine." We regard it only as *the most nearly perfect*—especially since the latest improvement in the new Model M Cushioned-Touch Comptometer—

—which eliminates all ciphers on the answer dial to the left of the actual answer. In reading answers, eye travel is limited to the length of the answer, instead

of extended the full width of the machine. The result is less eye-strain and nerve-strain . . . less likelihood of error . . . greater speed and accuracy . . . increased efficiency and economy.

This improvement, like the Controlled-Key safeguard which eliminates operating errors due to faulty manipulation of keys, is exclusive with the Comptometer. It is one more reason why Comptometer machines, and modern

Comptometer methods, handle more figure work in less time at lower cost.

For a demonstration of "Comptometer Economy" on your own work, telephone your local representative. Or write to Felt & Tarrant Mfg. Co., 1712 North Paulina Street, Chicago, Illinois.

COMPTOMETER
REG. U. S. PAT. OFF.
 ADDING-CALCULATING MACHINES

Washington and Your Business

Why Write to a Congressman?

THE look-out men report that not in recent memory has the congressional state of mind so nearly resembled utter confusion. Letters in opposition to the Papa Knows Best bill outnumbered the letters in favor by at least ten to one. Yet all the letter writers, broadly speaking, urged aid to Britain. The opposition writers darkly presaged interminable wars ahead, involvement with black, yellow and spiggoty politics, inflation and ruin, and said these things in desperate and angry epistles. Those favoring the lend-lease bill were emotional for Britain and against Hitler, and anticipated panzer divisions sliding down Pike's Peak. The observers said that no congressman is happy and few are certain.

Woodwinds on Capitol Hill

QUITE naturally the utterances on the congressional floors suggested a convocation of wood doves. Barkley urged members who were bursting with oratory to reserve their efforts for the Children's Hour. A concession is here made to purists. He did not use those identical words. Brewster pointed out that small shipbuilders in New England are being ruined, La Follette said Wisconsin's skilled labor is being drained away, Lucas sorrowfully reported that the Middle West wants its fair share, and Russell agonized that every other state on salt water was getting big spoonfuls of gravy, but that Georgia was not even near the tureen. No voice raised in anger. Just immitigable gloom.

Grief in the Lower House

ON a typical day in the House, Woodrum admitted that, if the Administration turns the 200 coffin-shaped ships over to Britain "it would certainly be guilty of bad faith with Congress." Robson responded that the new British ambassador has said that Britain is to get them. No one rose to deny it. Some one wanted to know how come the new Ambassador was visiting Chairman Sol Bloom. Mr. Bloom's defense was that he, Bloom, can be just as polite as anybody. Some one retrieved Sir Cecil Spring-Rice from the past of Cleveland's Administration and noted that Sir Cecil wished to his dying day that he had not taken pen in hand about American politics. Sounds of keening were heard from the Irish members.

No Gleams of Light

MASON wondered if the appropriation function would be left to Congress, "all the others having been taken away." Taber told of an Army request for \$3,391,000 with which to buy 15,000,000 black neckties. The color of the neckties seemed to harmonize with the tone of the House. Members sat with their chins on their chests. Wigglesworth reported that the W.P.A. is charged with the illegal spending of \$21,000,000 last year, that the Comptroller General is trying to get an explanation from T.V.A. about 7,928 items at an unauthorized cost of \$6,700,000, and that the free mail of the departments and agencies in 1940 took \$41,000,000 out of the Government exchequer. "In spite of the President's promise of departmental economy, the first appropriation bill carried an increase of \$165,000,000 on comparable items." Rich said his frequent

urging of economy was "water off a duck's back." Gifford smelled gunpowder in all the departmental requests. The Federal Communications Commission was worked over, but no hope was expressed that anything could be done about it.

Labor Planning to Bear Down

THE bug under the Reuther's plan chip has been revealed. Labor is demanding a larger share in the management of industry after the war. First steps are to be in guise of an aid to the defense program, as in the Reuther proposition to convert automobile factories into airplane works. This has been rated by industry as wholly impractical, but it is "under serious consideration" by the President, and, if he o.k.'s it, Mr. Knudsen may discover signs of a change in the weather. Philip Murray of the C.I.O. is the front man. Murray is New Deal when that course pays, but has no hesitation in getting tough, as in his criticism of the lend-lease bill.

Hillman's Power is Growing

MURRAY and Sidney Hillman, of the O.P.M., are on good terms, and Hillman is gaining strength in the O.P.M. Hillman still draws his salary as a C.I.O. chief. The more or less vague scheme at present is to form government agencies for the management of industry on which capital, labor and the public will be represented, with government sitting in the big chair and swinging the gavel. A.F. of L. enthusiasm is tempered by the twin facts that C.I.O. is all out for it—and A.F. of L. not only detests but doubts C.I.O.—and that A.F. of L. chiefs fear that too many labor leaders and government drum-beaters are filled with fervor but lack practical knowledge of how industry makes the wheels turn.

It's All Done with Graphs

THE look-out men report that too many men who live with graphs are engaged in the defense program to the advantage of those who are used to handling blueprints.

Here's one of the examples:

"I can get into full production in three months," a manufacturer promised in November.

"We'll come and look you over," said the academicians. Mind you, the factory man had been running his factory without help from planchette boards for a good many years, but the visitors from a higher sphere looked, graphed, and reported that he could not possibly do it. So he went ahead and did it. Now the Washington cuties are returning to tell him to do it some other way. Henry Ford has been mildly successful for some years, but a delegation reported that he could not do what he said he could do. If Knudsen had authority he could say:

"Go on with you, Henry—and Heaven help you if you fall down."

They Waylaid Donald Nelson

AS coordinator of purchasing for the O.P.M. and its predecessors Donald Nelson did a solid gold job. He is executive vice president of Sears, Roebuck & Company, and is in the habit of looking far ahead, discovering sources and needs, fitting production to slack periods, and keeping up

NEW CHEVROLET TRUCKS



**NATION'S
NO.1
TRUCK**

**OUT-PULLS
OUT-VALUES
OUT-SELLS**

CHEVROLET MOTOR DIVISION
General Motors Sales Corporation
DETROIT, MICHIGAN

FIRST IN SALES

because it's

FIRST IN POWER
AMONG ALL LOW-PRICED TRUCKS

FIRST IN FEATURES
AMONG ALL LOW-PRICED TRUCKS

FIRST IN DESIGN
AMONG ALL LOW-PRICED TRUCKS

FIRST IN STEERING EASE
AMONG ALL LOW-PRICED TRUCKS

FIRST IN VALUE
AMONG ALL LOW-PRICED TRUCKS

his guard against the unexpected. No one will ever know how much money and time he saved the government. Then the departments struggled to return to the go-as-you-please style of 1918, which could only be done by reducing Nelson's authority. Lawyers interposed technical objections to his simplified courses, as they are doing in other defense matters, and Nelson eventually resigned, as other business men have been compelled to do. He was persuaded, however, to withdraw his resignation for the time being. The assumption is that if red tape and finicking obstacles continue to hamper him he will go.

Please, Sidney? Say It's Not So

management and labor to extend the number of factories in which on-the-job training is being offered." Industry has always up-graded its workmen. Otherwise skilled men could never be found. But the idea of being told how to do it by bureaucrats has a smell of fish to some nostrils. The second advance by Hillman is an expansion of the Office of Small Business Activities. Thirty-six field offices are to be "expanded and adequately staffed with business, financial, contract and engineering experts to provide decentralized advisory services." Donald Nelson had it first, but he handled small businesses in an easier way.

Digging Up a Buried Bone

REPORTERS who got from Mr. Hillman's division the story of Henry Ford's refusal to accept a labor clause in a contract wrote:

Hillman has sought for months to have contracts withheld from the Ford company until it agreed to comply with labor statutes.

Not so. The Ford company merely refused to accept a labor clause Hillman wrote into the contract against the wishes of the War Department and his associates on the O.P.M.

Clauses are Law Nowadays

IT IS, of course, a fact that the Supreme Court decided that agreements between employers and employees must be expressed in writing, although that direction is not to be found in the law. The Court upheld a ruling of the N.L.R.B. to that effect.

The chief value of the incident is to show how far along the road to complete independence the great administrative agencies have gone in the past few years. A carper might add that in another decision the Court ruled squarely that it has nothing to do with the intent of the legislature when it enacts a law, and only passes on the constitutional authority of Congress to enact it. But there is little nourishment in carping.

Priority Plan for Trouble

SOME men in the Administration who are more concerned with making the defense program work than in winning a political advantage are concerned over the widening division between the labor and the industrial elements in the Administration. Granting that both groups are whole-hearted in their pursuit of the national objective, it remains the fact that little by little the groups are being arrayed against each other. An instance is in the placing of men representing labor on Stettinius's priority group, and men representing business in Hillman's labor division.

The men could have been named in the ordinary course of O.P.M. operations and nothing would have been

thought of it. But a fanfare was blown, and this emphasizes the fact that there is a division instead of a coalition. Knudsen and the industrial group have been working for production, but Hillman, Lubin, Murray and others seem to have centered much of their attention on possible gains for organized labor.

Then John G. Winant was made ambassador to Great Britain. He is able, fine, and a sentimental advocate of all that labor wants.

The announcement that a "representative of business" was to be made minister to Britain, as an offset to Labor's man, did not bridge the widening gap.

Supreme Court Deals an Ace

THE hands of Hillman have been strengthened by the Supreme Court decision in the Anheuser-Busch case. This was, in effect, that there is at present no control of law if production is held up by a jurisdictional fight between unions. A defense contract might be held up indefinitely if a union went on strike for any one of the innumerable causes of dispute found in union history and nothing could be done about it. Hoffman of Michigan said on the floor of the House that "If national defense rests solely in the hands of union politicians then members of Congress might as well go directly to the heads of unions and be done with it."

Did Garner Go All Girlish?

WHEN Garner left for Texas the story ran that he burst into tears and kissed his beloved Chief farewell. The sound and wiggle rights of that scene would be worth good money. A more plausible version is that:

"Have you any advice to give me, dear old friend?" asked Mr. Roosevelt.

Garner had advice, his friends say:

Give Bill Knudsen full authority over the defense program. He can run it if you give him a chance. You're not getting anywhere this way except into a mess.

The President, so the story goes, arched his brows.

"You needn't worry, Chief," said the Texan. "Knudsen was born in Denmark. He can't run for the presidency."

For Sale Cheap: States' Rights

SYNTHESIS of the Supreme Court decision in the Wage-Hour case, done into the vernacular from statements by lawyers, is that the states have again had their ears beaten down. About all the rights left to the states now are to elect governors, get into debt and, in extreme cases, commission chromium colonels.

Notice is given that the Court will not examine hereafter the purpose of a congressional act to determine whether its motive may be legitimately sought under the terms of the Constitution.

Congress may enact whatever regulatory legislation it pleases.

It may adjust wages, as between the North and the South, for example; determine hours; pass on materials, production quotas, and prices; rule that industries wholly contained within a state must obey federal ordinances determined by a presumed effect on interstate commerce. The federal Government is, in effect, given almost unlimited powers.

So Here Come the Comrades

CONGRESS is to be asked to extend the life of the Bituminous Coal Act, which would otherwise die in April. Under it, Secretary Ickes has named an advisory committee for the Coal Division in the Interior Department made up of five mine operators and five labor executives to recommend legis-

RAILROADS ARE READY

A factual report to the American people

What if the country is called upon to meet a real emergency this year—or next? How will our rail transportation system meet its responsibilities? How does the American railroad performance of 1941 compare with that during the World War?

A thoughtful public, facing a dangerous world situation coolly and realistically, is entitled to ask such questions—and equally entitled to honest answers. Here they are:



Bigger locomotives pull more freight. Unqualified statements that railroads have fewer locomotives and cars than in 1917 are meaningless. Today's locomotives average half again more powerful. Today's better freight cars hold a fifth more and travel 64% faster.



It can't happen again! In 1917 ports and terminals were congested and transportation was slowed down because freight cars were used not to move goods but to store them. On just one order, 40 miles of cars clogged the tracks for weeks until a shipyard got ready to unload them. That won't happen again because close teamwork by the railroads, shippers and government agencies now keeps cars moving and gets them unloaded promptly.



Housing a million men. For the new army camps, the railroads delivered nearly two billion board feet of lumber—75,000 carloads—in 6 recent months. Work was never held up because of any railroad failure to deliver materials. Cars were loaded and unloaded promptly by shippers and contractors. There was not the least interruption of regular rail traffic.

1939

1920
14,877
TON MILES
PER FREIGHT
TRAIN HOUR

1939

32,150 TON MILES
PER FREIGHT
TRAIN HOUR



* * *

Railroad efficiency more than doubled. That is the net result of larger engines and cars, longer trains, faster schedules, better signals, streamlined yards and greatly improved operating methods. In the peak year of 1929, the railroads hauled 8½ million more carloads of freight than they did in 1918 although they had 60,000 fewer cars and 5,000 fewer locomotives.

Whatever the demand—America's railroads, despite the hard times of recent years, are keeping fully prepared to meet the nation's transportation needs.

ASSOCIATION OF AMERICAN RAILROADS, WASHINGTON, D.C.

P.S. PERFECT SHIPPING A national campaign each APRIL to promote good packing, secure loading and careful handling of ALL shipments—sponsored by Shippers Advisory Boards. Avoid loss and damage. We can't afford to waste our national resources.

lative policies and administrative practises. That boils down to labor being given a 50-50 share in regulating an industry with which it is bargaining on wages and work rules. Commenting on these and related facts the *Wall Street Journal* observed editorially:

We shall have gone a long way toward sovietizing American industry. At the end of the road are two things; the abolition of private property and free enterprise, and the extinction of labor unionism.

"Men Wanted" Sign Goes Up

A ROUND-UP of statistics compiled by the Census Bureau, the Labor Department, and various economists and research organizations indicates that, by the end of 1941, every employable man will have a job.

If the aid-to-Britain plan is carried out to its present probabilities, a six day week in factories, plus a considerable shift of men from the farms, is regarded as a certainty. These facts are annoying some of the government reliefers.

It is certain that an effort will be made to cut relief appropriations from the Harry Hopkins ideal to a realistic level.

Lion's Tail in Politico Door

If, under the new plan, they must take what they are given, when they can get it, subject to the irresolutions, changes, politico rule and labor interferences which have not yet been resolved into order, they fear the worst. They are continuing to ask for grants or loans of money that their program will not be interfered with.

"Amateurizing" in Business

A SAMPLE of what has been happening may be offered. One of the great corporations was asked to build a new plant to handle defense business.

"But it is not needed," urged the management.

"You must build," insisted the amateur rulers. "We know best."

The plant was built. Cost \$20,000,000. No orders as yet.

Another Ray of Gloom

SECRETARY ICKES' Coal Division has presented evidence of the sweet things that may happen when theorists begin to shoot dice with such realities as the law of supply and demand. In late 1940 it presented a schedule of about 500,000 coal prices at the mine, based on more factors than there are stars in the Milky Way. It has been belatedly discovered that the prices were tied to cost factors which only covered 1936 and the first nine months of 1937.

But it is a criminal offense to sell coal for less than the government minimum, no matter how low the actual cost of production may be.

Reading the Tea Leaves

SHIPPING men say, however, that the future may not be without its joys. The 200 coffin-shaped ships which are to be built by the Government—and if the British Ambassador is well informed, as why shouldn't he be?—given to the British, are to be driven by reciprocating engines. The shops capable of producing modern turbine engines are all busy with orders for mechanisms for the far finer ships the U. S. Maritime Commission and the Navy are building.

Therefore, say the shipping men, if any of the coffin-

shaped ships are still in commission after the war they will not be fit to compete in world carrying trade. They admit this may be wishful thinking.

Logan's Name Not Forgotten

ALTHOUGH Sen. M. M. Logan of Kentucky has been in his grave for a year, and Senator Hatch has taken his place in urging the passage of the bill to cure the disorders of the great administrative agencies, it seems likely that the law, when and if enacted, will be remembered by the public as the Logan-Walter bill until time has dimmed the memory of the Kentuckian.

Much will depend on the steam to be supplied by Senator Hatch. He is confident that some effective law will be enacted and that in the future tyrannous bureaucrats may face inquiry by officials not of their own households.

Department of Funny Facts

SOME congressmen who were devotedly interested in the Logan-Walter bill which was vetoed by President Roosevelt shake their heads at the bill introduced by Senator Hatch, and framed on the recent report made by the Attorney General's Committee on Administrative Procedure.

They allege that the Hatch bill would result in another bureau, headed by a \$7,000 director, and which would soon amass a mound of history, precedents and records which could only be matched in magnitude by Secretary Ickes' coal division.

Sixteen States in Opposition

GOVERNOR CARR of Colorado has "struck a blow for liberty" as Garner used to say. He invited the governors and water officials of 16 western states to meet in what he called a "States' rights war council."

He said the regional plan made possible by the Supreme Court's decision in the New River case, plus the Arkansas Valley Authority plan introduced in Congress, which would take over control of water rights in eight states and 308,000 square miles, are

The greatest menace to state rights and individual liberty which exist today.

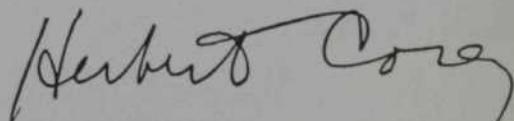
Sixteen states could plough quite a furrow through Congress if they set about it. The really extraordinary fact is that a matter of such significance has been ignored in the current worry over the safety of Dover, Singapore, and the Whangpoo Islands.

Another Feather in the Wind

MISS Harriet Elliott, Consumer Commissioner of the National Defense Advisory Commission, states that, in view of the tendency of rents to spiral upward under the influence of the present demand in some cities:

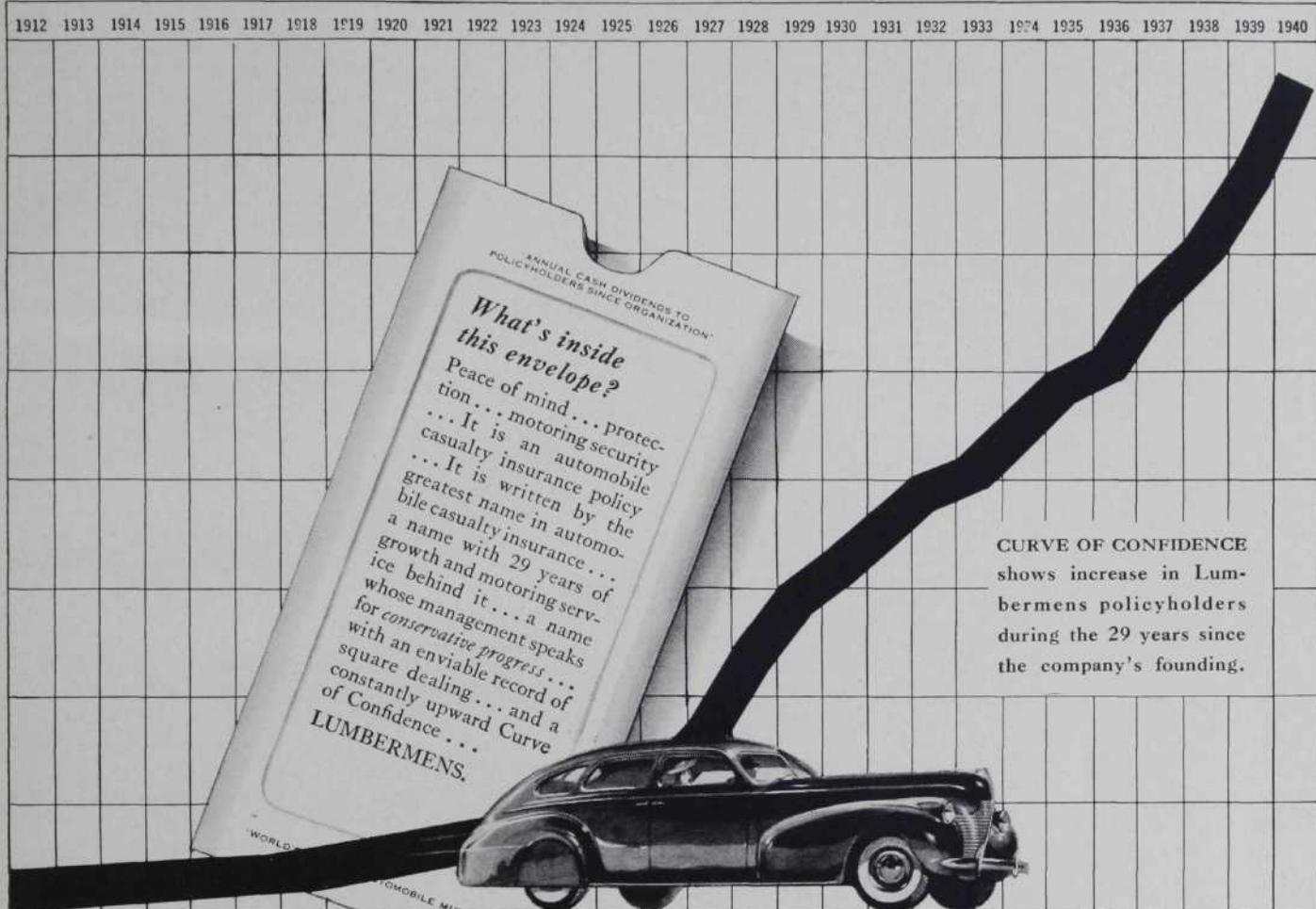
"A bill is now being drafted" for introduction in Congress which will give state and local governments a "sound basis" for legal action in "situations which may become sufficiently serious to require legal measures."

Lawyers who were at one time rated as experts on the American constitution are of the opinion that states do not need the permission of the federal Government to take such action. Unless, of course, rents for four-room houses are to be classified under the interstate commerce clause.

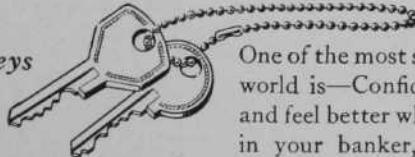


FOLLOW THE CURVE OF CONFIDENCE

WHEN YOU BUY YOUR NEXT AUTOMOBILE INSURANCE



These automobile keys stand for all people who drive cars



No one wants to have an automobile accident. Yet daily papers keep on headlining them.

Good automobile insurance is a great investment, even if you never have an accident. It is worth a lot to know that you have done your duty to others and yourself.

But if an accident should occur, good automobile insurance is pocketbook, lawyer and repair man, all in one.

One of the most satisfying feelings in the world is—Confidence. You sleep better and feel better when you have confidence in your banker, your doctor—anyone with whom you do business.

A great army of motorists has found in Lumbermens an insurance company worthy of their confidence. Starting with just a handful of policyholders in 1912 (year of founding) Our Curve of Their Confidence has climbed steadily upward—and is still climbing.

Naturally, as the number of policyholders increases, so do assets (now more than \$40,000,000). So does net surplus

(more than \$5,500,000) and so does opportunity for trustworthy service.

If you are a responsible driver (no others need apply) we believe Lumbermens merits your consideration for your next automobile casualty policy.

We believe our new policy-features offer the most comprehensive protection in the field, and that our rates are as economical as you can find—commensurate with safe protection.

Lumbermens service is nationwide. One of our representatives is located near you. Ask him to figure on your next automobile casualty policy.

Lumbermens

MUTUAL CASUALTY COMPANY

JAMES S. KEMPER, President

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Home Office: Mutual Insurance Building, Chicago



Me and the Consumer Movement

By MRS. VERA SPRINGER

THIS housewife is more afraid of her would-be rescuers than of the "terrible" fate from which they promise to protect her

I AM a consumer in the lower income brackets. Since our annual buying power is a peg or so below the average yearly income of 51,000,000 American families, you could hardly call me an Economic Royalist. I don't live in Greenbelt, that "tiny island in a sea of the profit system," and my husband is definitely not the editor of any co-operative paper. Far from it. He's just one of the Government's thousands of unpaid bookkeepers. You know what I mean—you folks who are trying to run your own businesses and, in addition to doing your own book-work, keeping all those extra reports which The Law requires; and for which you get neither a bonus, nor a grudging "Thank You."

Now that I've established our economic bracket, you'll readily understand why any movement which promised to teach me how to get more goods for my dollar won my most hearty support. When I learned about the consumer movement from my friends and from various government pamphlets, I thought I had stumbled onto God's little green acre all done up in a governmental package.

You've no idea what a naive little thing I was—before my consumer education began. Would you believe it, I still thought of advertising as a sort of second Santa Claus.

But I soon learned that, before I could enjoy all the benefits to which the consumer movement would intro-



duce me, I would have to trade in a couple of theories, hangovers from the horse and buggy days of my rugged individualist childhood. Henceforth, and from now on, I would have to concede that:

The old class fight

SOCIETY is divided into two classes. Mrs. Consumer, who is *always* a veritable Little Red Riding Hood, going with her basket, not to granny's house, but to market. And, that big, bad wolf (now you gentlemen ought to know by this time, who you are) who would get Little Red Riding Hood if she didn't believe, and act upon every word her consumer movement literature told her.

Gentlemen—you've *no* idea the things this consumer literature taught me. All my life, I have lived, breathed and had my consumer-being, by one thing alone—business. Little business. Now I learned that All Business, except that managed by government agencies, is bad and wicked. But I was not to worry. Because just as soon as enough of us consumers could get ourselves sufficiently banded together, business would be made to disappear. We consumers would run our own business. On the cooperative plan, with the Government's blessing!

I blush even now to think of my ignorance, before I began to read and find out all these beautiful new truths which my consumer literature put before me. I'd even been dumb enough to believe everything the manufacturers told me—through the labels on goods. It was something of a shock to me to learn that:

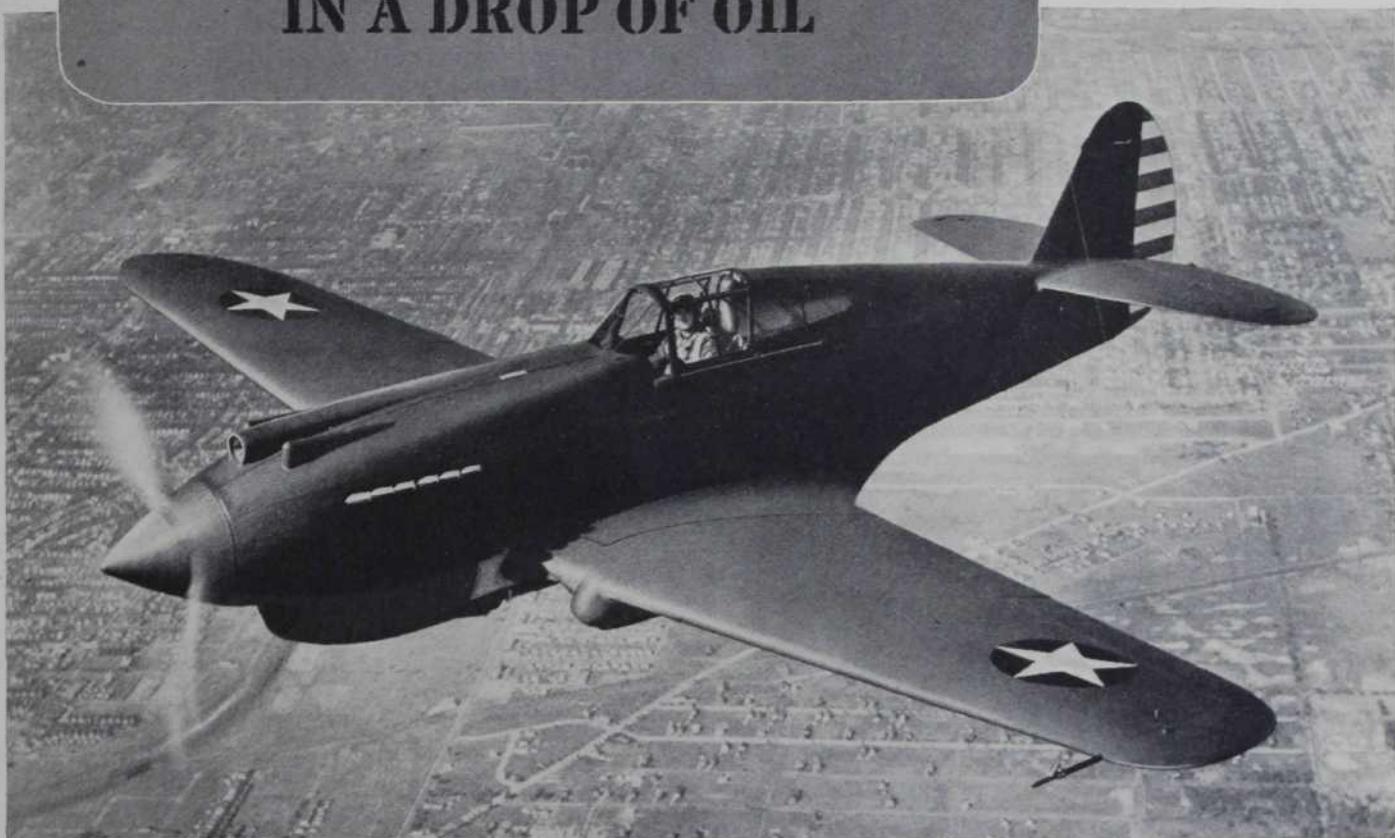
The poor consumer is given only labels of Alice-in-Wonderland variety.

The pamphlets told me that I mustn't believe what was printed on the packages



CHARLES DUNN

**THEY FOUND
90 extra miles an hour
IN A DROP OF OIL**



CURTISS P-40 PURSUIT

A drop of crude oil will spot your clothes—dirty your hands—make you sniff. Nasty stuff! Yet scientists at Shell's research laboratories look at it and love it...

They see in it a universe of possibilities—wonders realized and miracles yet to come.

They discovered how to produce iso-octane, on a commercial scale, from a waste petroleum gas. This was the key to 100-octane fuel for American aviation which led to an increase in the speed and flying range of America's planes up to 30%...

Because Shell scientists saw extra miles in a drop of oil, and were able to get them out.

HOW does this apply to your problem of increasing production—maintaining plant operation without a hitch?

Industrial lubrication is changing as rapidly as production itself. Yesterday's solution is seldom good enough for today.

Shell's \$3,500,000 research facilities, manned by 821 scientists and assistants, exist solely for the purpose of finding something new—and better.

In literally hundreds of instances, Shell lubrication engineers have opened the way to increased production and lower

operating costs, by lubrication changes.

Before Shell industrial lubricants are offered to you, they are plant tested under all kinds of actual operating conditions.

With the use of Shell lubricants, you are assured the continued watchfulness of Shell men—a service which needs no prompting. •

Are you quite sure that your plant has the benefit of all that is new in lubrication, as it develops? You will find a Shell man's recommendations entirely practical—and made without obligation.



SHELL INDUSTRIAL LUBRICATION

I gasped when I read:

Consumers everywhere suddenly discovered that they hardly had a Chinaman's chance of getting their money's worth when they went to market.

Labels are helpful

WASN'T I getting my money's worth? And what about these Alice-in-Wonderland labels? I had believed that when a can of peaches, or apricots, or pineapple or figs, or any sort of fruit gave, on the can, the information listed below, that I was receiving about all any "poor consumer" ought to expect for 15 cents. This then, is what I was getting in the way of labels.

1. Number of pieces of fruit in the can.
2. Size of can.
3. How many servings.
4. Syrups. Thin, medium or heavy.
5. Where, and by whom can was packed.

Now let me tell you, number five is something to write home about. Because the consumer actually has the address of the company and, if she has a kick coming, she knows where she can register it. Which is something not given on many government packages that fail to carry the home

It has been my experience that, if the consumer would just turn the can around, she would find, aside from the "pretty picture" the information just given. Furthermore, I have actually examined some "canned goods" put out by certain agencies, which do not carry the "pretty picture" of the cabinet member, or assistant secretary of this or that agency responsible for the pack.

I found, too, that even a five-cent package of cookies carried the exact number contained inside. You knew by the label, exactly to the last ounce or pound, how much spaghetti was done up in the Cellophane wrapper. Frankly, I just couldn't see how all this could be called "buying blind."

I had always felt a little thrill of appreciation of the fine packaged and canned goods now on the market. Then came another consumer pamphlet, telling me how terribly wrong I was. I learned further that "any time the business men and the manufacturers give the poor consumer all the dope," they do so "only for a selfish purpose." I just hadn't thought of it that way.

Furthermore, any credit I had been willing to give the business man and

facturers and merchants a lot of credit because towels, and percale and sheets and other things in the textile line now bear a laundry test, thread count, strength, weight and size label. Even directions for laundering are carried on blankets, which I had thought was just grand. Which, so my consumer literature informed me, showed how ignorant I was, because: "All such gifts (above mentioned labels) must be carefully examined." Business, it seemed, was one gift horse you should *always* look in the mouth.

You'd never dream how ignorant I had been about advertising!

In my innocence I hadn't thought about the wicked, wanton, economic waste that lies in advertising. I was just too innocent and trusting for words. Because I'd always been a pushover for free cookbooks and samples of hand lotion and face powder and so on.

And even with only six cents in the bank, if I'd run onto an ad that said that for ten cents they would send me a beautifully illustrated booklet showing how to arrange flowers. . . . But all this was wrong. Horribly wrong.

Expensive advertisement

HIGHLY colored ads were "unfair" to the advertisers who could not afford advertising in color. I never thought of it that way. I knew that if I liked a product I bought it if I could pay for it—regardless of whether its virtues were played up in plain black and white or in highly colored illustrations.

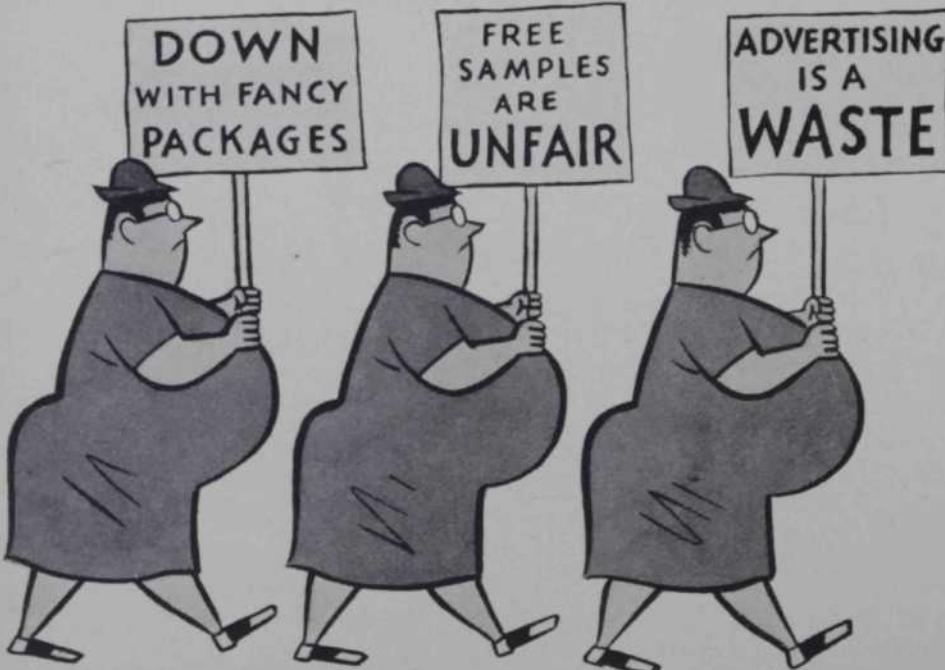
There was a plan on foot, so I read, where, if we consumers would only band together and hold up this new trial balloon sent up by certain government agencies, to wit, if we would demand that the cost of colored advertising and Cellophane wrapped, be discontinued, we would inherit much more noodles, cookies, dried fruits, and so on.

All we had to do was to set up a consistent and well organized clamor for a return to the days of the open cracker barrel; the days of the unprotected butter tub and so on. Right there I balked. I can still remember those "good old days." You know. When there were black pepperish spots on the crackers in the open barrel, and the flies hummed busily.

After all, here we'd been fighting for years to get better sanitary conditions in food, groceries and drugs. Now why, when we had actually attained this goal, should we return to the days of the real Alice in Blunderland buying?

I became group conscious. Because,

(Continued on page 64)



The only way we consumer groups could save ourselves was to form a bigger and better "pressure group"

address of the fellow who cooked up the package. If I got all this from big wicked business, for 15 cents then, what more had this Consumer Movement to offer me?

Plenty—in the way of words.

The consumer is expected to judge the quality of food inside the can by the pretty picture on the outside.

the manufacturer for giving the consumer good quality at reasonable prices was knocked into a cocked hat, by this priceless piece of information:

The consumer only gets what he wants when it is to the advantage of business to give it to him.

Here I'd been giving the manu-

The business of supplying ADHESIVES FOR 100 INDUSTRIES

The chart below barely suggests the wide range of adhesives problems successfully solved by Arabol—since 1885. Today, Arabol serves thousands of manufacturers—with 8,500 adhesives formulae on file and 900 in active demand.

Your Arabol Representative is qualified by long

and wide experience to help you find the one best answer to your requirements. Many problems can be whipped right in your factory, in one day. At all times, he can call upon any of three laboratories for quick action on new or special needs. See the Arabol Representative when he calls.

WRITE us for Bulletin No. 21. Let us tell you of current developments in gums, glues and pastes for your particular line of business.



LABEL MFRS. Remoistening gums. Special pastes and glues.	CANNERS Machine pickup and lap labelling. Spot tin labelling.	TOILET PREPARATIONS Embossed labels. Carton sealing.	TOYS Liquid wood glues.	CASKET MFRS. Interior paste. Covering glue. Sizing.	MACARONI MFRS. Lining pastes. Sealing glues.
SAMPLE CARDS Transparent, non-warping pastes.	BREWERS Iceproof labelling glues. Government stamp pastes.	COFFEE, TEA, SPICE Label adhesives for aluminum, tin and glass. Carton sealing and shipping case adhesives.	GAMES Special adhesives for wood, cardboard, paper.	TOBACCO MFRS. Cup glues. Cigarette seam glues. Cork tip gums. Case sealing glues.	RAZOR BLADE MFRS. Envelope and carton sealing adhesives. Shipping case sealing.
HOSIERY Rider ticket adhesives. Labelling lithographed boxes. Case sealing.	DISTILLERS Strip stamp adhesives. Hand label pastes. Machine label glues. Case sealing adhesives.	HARDWARE Steel or iron label adhesives. Labeling waxed wood handles.	LEATHER BELTS Latex base adhesives for spraying. Buckle covering adhesives.	FLOOR TILES Special cements for mounting.	NEWSPAPERS Mailing machine paste. Wrapping adhesives.
COMMERCIAL PHOTOGRAPHERS Mounting photos to paper, cardboard, linen.	WINERIES Waterproof bottle label adhesives. Barrel labelling.	PAPER BAGS Bottom and seam adhesives for plain paper, foil, cellophane, glassene.	NOVELTIES Glues—Pastes leather to wood, cardboard to paper, paper to tin, tin to leather.	GLOVE MFRS. Seam composition. Lining composition.	PAPER DRINKING CUPS Seam pastes, moistureproof. Bottom gums, moistureproof.
ARTIFICIAL FLOWERS Leaves. Petals. Stems. Cloth Sizing.	SOFT DRINKS Iceproof and straight label glues. Body and neck labelling.	PAPER TUBES Spiral tube glues. Convolute tube glues.	BROOM MFRS. Labelling painted wood. Labelling waxed wood.	LAMP SHADES Heat resisting adhesives for silk, parchment, oiled paper.	PAINT MFRS. Tin labelling. Glass labelling. For hand or machine work.
PATENT MEDICINES Glass labelling. Bottle wrapping. Carton sealing.	BOOKBINDERS Hot glues—backing. Flyleaf paste. Gummimg machine glues.	TIN CAN MFRS. Case sealing glues.	MOUNTERS—FINISHERS Prepared glues. Hot non-warp glues.	ENVELOPES Back gums. Seal gums. Back and seal dextrines.	PAPER BOXES Wrapping gums. Non-warp pastes and glues. Dry stripping gums. Prepared stripping and wrapping glues.
COSMETICS Lipstick labelling. Adhering rouge cake. Sealing powder boxes.	PRINTERS Make-ready paste. Flexible glues. Padding compositions. Pad cements.	PAPER MILLS Roll heading adhesives. Paper sizing.	CIGAR BOX MFRS. Lining pastes. Label glues for wood—tin.	MAP MFRS. Mounting pastes for paper, cardboard, muslin.	★

And—for Your Offices—

You'll find sound values in the pastes, glues and mucilages made by a firm with 55 years' experience in supplying the adhesives requirements of a hundred industries. Write us for the name of the nearest Arabol distributor.



THE ARABOL MANUFACTURING CO.

PIONEERING SINCE 1885

Executive Offices: 110 East 42nd Street, New York, N. Y.

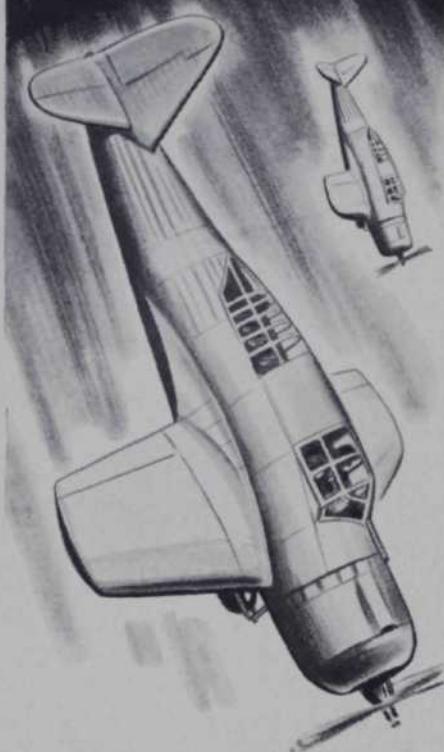
Factories: . . . Brooklyn • Chicago • San Francisco

Branch Offices or Warehouses:

Boston • Philadelphia • Seattle • Toronto • Montreal

Adhesives? . . . ARABOL!

"Air Raids" on Your Balance Sheet?



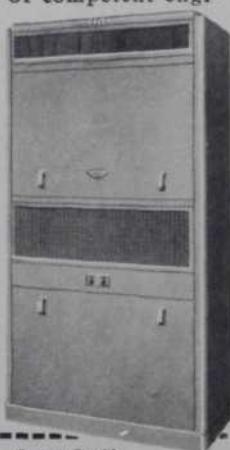
INTERRUPTIONS, delays, spoilage, high maintenance—all are frequently caused by lack of proper AIR CONDITIONING.

Yes—in addition to improvement of human health, comfort, and efficiency, air conditioning also improves products and processes by providing dust-free air of proper temperature and humidity.

But your air conditioning plant should be properly designed and installed. Seldom are any two air conditioning problems alike. That is why FAIRBANKS-MORSE maintains a staff of competent engineers near you. They know local climatic conditions.

Perhaps you are already thinking of air conditioning as a health builder for your balance sheet. Why not find out now just what can be done? That can't cost you anything—nor obligate you in the least. Use the coupon.

F-M High-Boy Air Conditioner: self-contained, water cooled, requires no structural alterations in building for installation. Available in 3- and 5-ton capacities.



Fairbanks, Morse & Co., Dept. C-133
600 S. Michigan Ave., Chicago, Ill.

Gentlemen: We are interested in learning what air conditioning can accomplish for us. Our problem is one of: comfort; health; manufacturing process.

Name _____

Address _____

City _____

State _____



FAIRBANKS, MORSE & CO.
Air Conditioning Division

Saving a City is Good Business

(Continued from page 36)
1940 as were built in the previous year. Residents who did not rebuild, renovated.

Home owners throughout the city became repair conscious as they watched Simpson Avenue transformed from a museum piece of pioneer days to a

were opening branches on Simpson Avenue. One is erecting a \$50,000 building, the largest construction job of its kind in the city for fifteen years.

There is no indication that either the drive or the boom is losing momentum. The reconstruction work on Simpson Avenue is approaching conclusion, but



C. O. Cooper, Millwork Manufacturer: "Let's keep the campaign going—it makes business."

streamlined sales district. They modernized, too, and their purchases of material and payments to contractors added to the general boom.

With business on the up-grade, new establishments were attracted to Hoquiam.

In the fall a new fish cannery opened, and in the first week of 1941 two major national concerns announced they

as Mr. Jenks puts it, "There are other streets in Hoquiam."

Having proved that modernization is contagious—that when one merchant gets bitten by the better business bug his next door neighbor is sure to be infected—the Hoquiam business men can see no reason why the "disease" shouldn't carry from one city to another.

It's good business.

Life Insurance Reports Gains

LIfe insurance companies in 1940 paid to American families an average of \$7,397,000 daily. Payments to policyholders and beneficiaries, aggregating \$2,700,000,000, an increase of \$59,000,000 over 1939, were double total paid out in 1925 and 16 times amount in 1900.

In contrast with the days when life insurance was considered a "die-to-win" speculation, living policyholders in 1940 received nearly \$1,735,000,000 in matured endowments, annuities, disability benefits, emergency aid through cash values, and dividends.

In addition to these payments, equity of policyholders in their policies increased an estimated \$1,375,000,000, making grand total more than \$4,000,000,000 either paid out, credited or accruing to interest of policyholders and beneficiaries in 1940, a new all-time high.

Assets back of life insurance policies

passed \$30,000,000,000.

This figure represents combined "security stakes" of nearly 65,000,000 thrifty Americans.

Total life insurance in force is expected to exceed \$117,500,000,000 when final reports are in, nearly \$4,000,000,000 more than at any time in history and \$14,400,000,000 more than in 1929.

It is twice the total in force in 1923 and more than 13 times the total of life insurance protection owned by Americans in 1900.

Life insurance as family security base increased 14 per cent in the ten depression years, now averages nearly \$4,000 per family.

In 1940, more than 18,000,000 Americans bought new policies aggregating an estimated \$12,700,000,000, either as new purchasers of insurance or as buyers of more protection.

LIBERTY



Our Government, industrial, financial, labor and educational leaders are making comprehensive plans for greater progress in the preparedness program of the United States.

Collectively, and as individuals, it is our duty to THINK, TALK, and ACT constructively in doing our part so that greater speed may be made in the advancement and strengthening of our country.

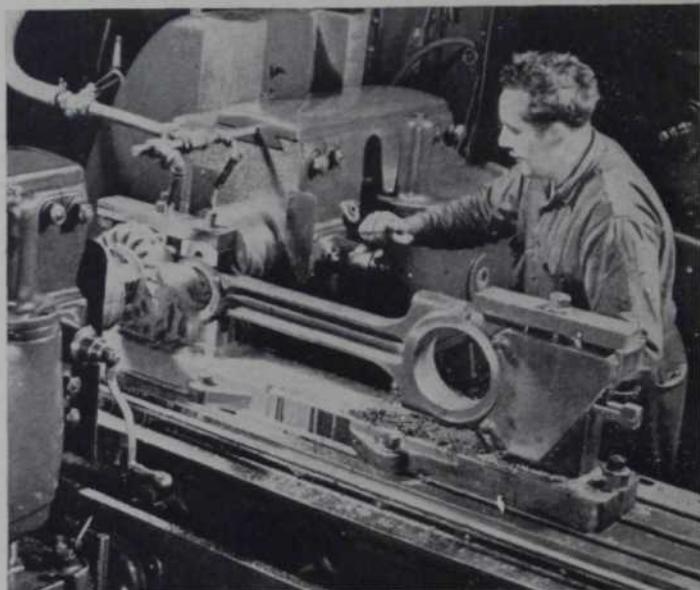
INTERNATIONAL BUSINESS MACHINES CORPORATION



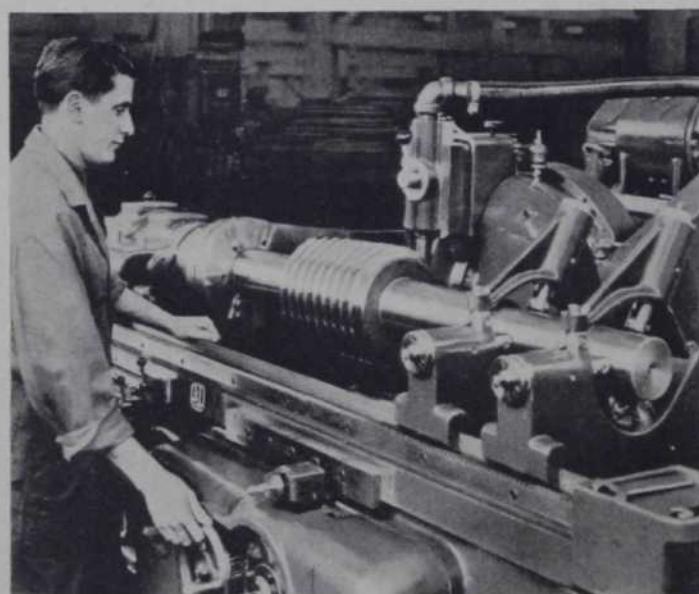
What's What and Why in



The height, thickness and shape of each of the 380 teeth on this broaching cutter as well as the distance between teeth must vary no more than a few ten-thousandths of an inch. This grinding machine will attend to that, if operated by an expert



This milling machine simultaneously finishes both sides of a large Diesel engine connecting rod. The rod passes between two cutters which cut down the rod to the desired thickness



An automatic thread grinder finishes a big worm gear. This machine is used to remove the last fraction of an inch of metal after the gear has been shaped on another machine. Once hardened, the steel is too tough to be cut by anything but an abrasive wheel



Grinding large screw shafts. This is a general purpose machine that can be used for a large variety of shaft grinding work. It is, therefore, used in plants building machine tools as well as in the plants of customers making other machines

WHEN this country first turned its attention to building an adequate defense, the public state of mind was one of optimism. The opinion seemed to be generally held that, as the greatest mass production nation in the world, we had merely to turn a spigot and watch tanks, machine guns and airplanes pour out to equip our defenders.

That didn't happen. People who knew their way about among production lines knew it wasn't going to happen. They knew what lies between a

congressional appropriation and a tank on the battle line.

Most of us lacked that knowledge. We went to bed at night convinced that defense was an accomplished fact. We woke up to find that machine tools would have to be the first order of business.

It was all pretty confusing.

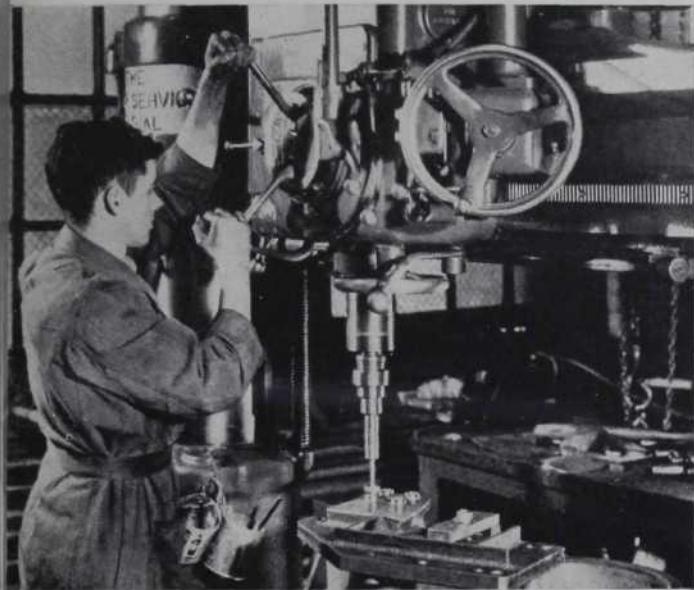
Why should we be all excited about machine tools?

To answer that, we need to know what a machine tool is.

By the most general definition possible, machine tools are the machines that make machines. Since modern wars are fought with machines, the machine tool's place in national defense now seems a little clearer—if we are going to have military machines, we need machine tools to make them.

But, after all, we have been making machines for years—automobiles, typewriters, computing machines, vacuum cleaners, sewing machines, locomotives, trucks and tractors, washing machines.

Machine Tool Industry



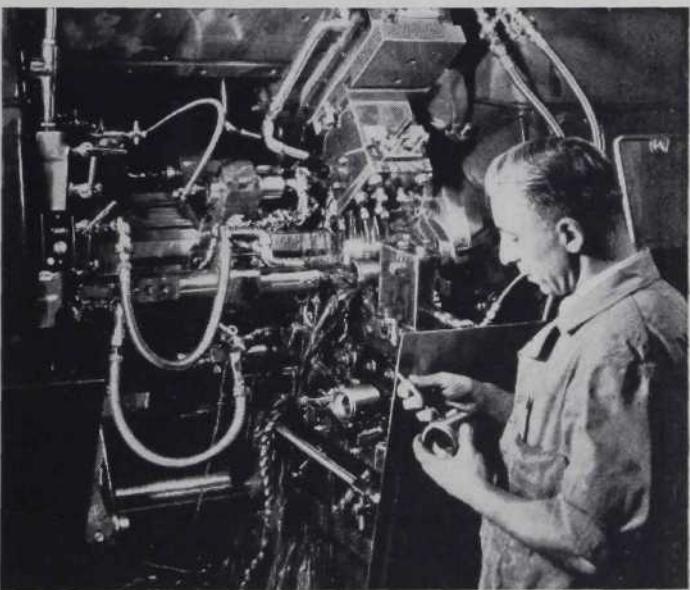
Holes are being drilled by a radial drill. The plate on top of the piece is a jig which guides the drill and so locates the hole. Drilling machines, especially those used with jigs, are probably the least difficult of all machine tools to operate



A milling machine reproduces itself by finishing a large, rectangular-shaped cast-iron part for another milling machine. The cutter, the round, multiple-toothed unit, lower center, rotates and at the same time moves across the flat surface that is to be shaved down



Boring a steel drum on a turret lathe. The drum is machined in two directions at one time. Some cutting tools are bolted on the square base, others on the larger, six-sided turret. The cutting tools, including huge drills, are brought into position one after another



An automatic machine shaping parts out of which gears are made for automobile clutches. Fashioned out of solid steel bars, the parts are turned, drilled, reamed and cut off in six simultaneous and automatic operations. Parts are turned out one every 30 seconds

All those were made with machine tools. Can't we use the same machine tools to make cannon or planes that we have been using to make other things?

The answer to that is yes and no. If we are going to understand this subject at all—and it seems necessary to understand it if we are to follow our defense progress intelligently—we had probably better begin at the beginning:

According to the National Machine Tool Builders' Association, a machine tool is "a power-driven, complete metal-

working machine not portable by hand, having one or more tool or work-holding devices and used for progressively removing metal in the form of chips." Grinding, honing and lapping machines are included in this classification although the chips removed can be seen only under the microscope, but other important metal working machines such as presses, metal shears, forging and stamping machines are omitted. They do not remove metal in the form of chips.

There are five major classifications of machine tools:

Milling machines remove metal by means of a rotating cutter with multiple cutting edges.

Planing machines remove metal by moving the work backward and forward under a stationary cutting tool.

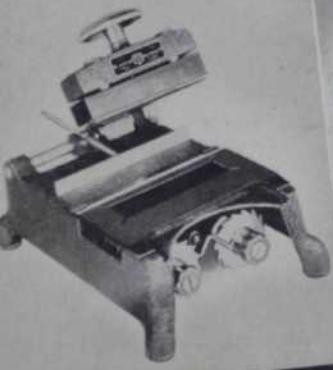
Turning machines remove metal by rotating the metal to be worked, and applying a cutting tool to it while in rotation.

Boring machines cut holes in metal by means of a rotating cutting tool.

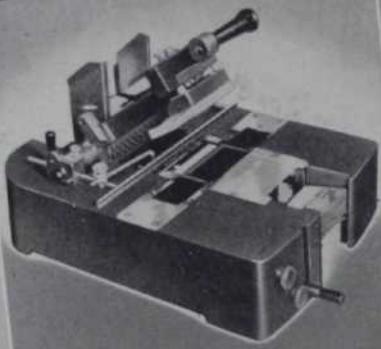
Grinding machines shape a piece of

(Continued on page 92)

PREPARED



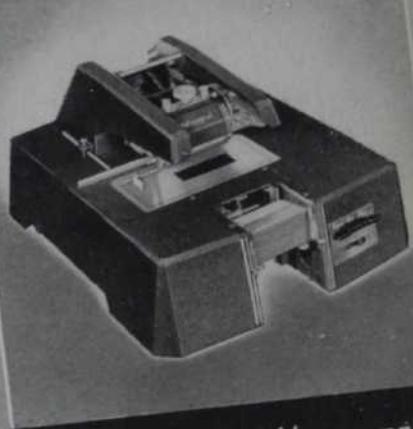
CLASS 500 Addressograph



CLASS 700 Addressograph



CLASS 700 Addressograph



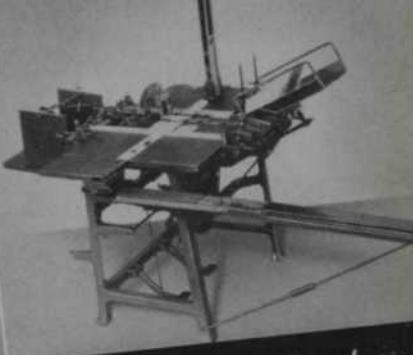
CLASS 900 Addressograph



CLASS 1900 Addressograph
WITH MAILER AND PROOF LISTER



CLASS 1900 Addressograph
WITH FRONT PLATE FEED



CLASS 2600 Speedamat
WITH AUTOMATIC FEED

Addressograph - Multigraph

Addressograph

TRADE-MARK REG. U.S. PAT. OFF.

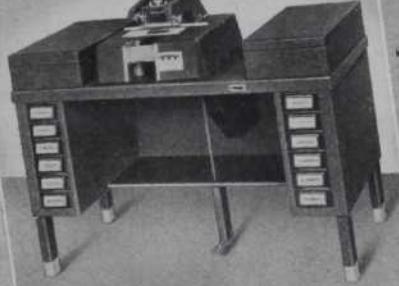
Addressograph models are priced
from \$29.50 upward, f.o.b.
Cleveland, Ohio

TO SERVE ANY BUSINESS

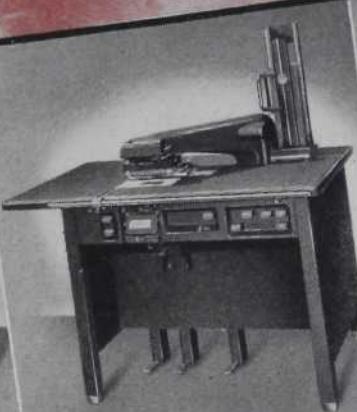
... ANY ORGANIZATION...WITH METHODS
THAT MAKE AND SAVE MONEY



CLASS 900 Addressograph



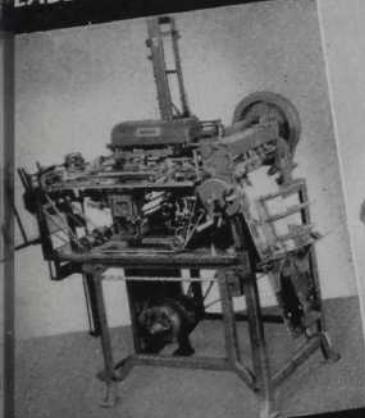
CLASS 900 Addressograph



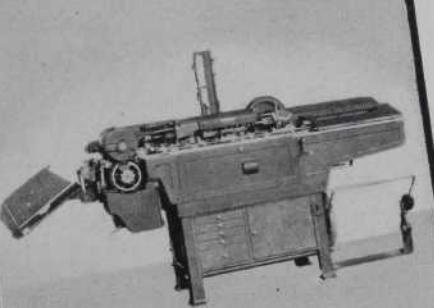
CLASS 1900 Addressograph



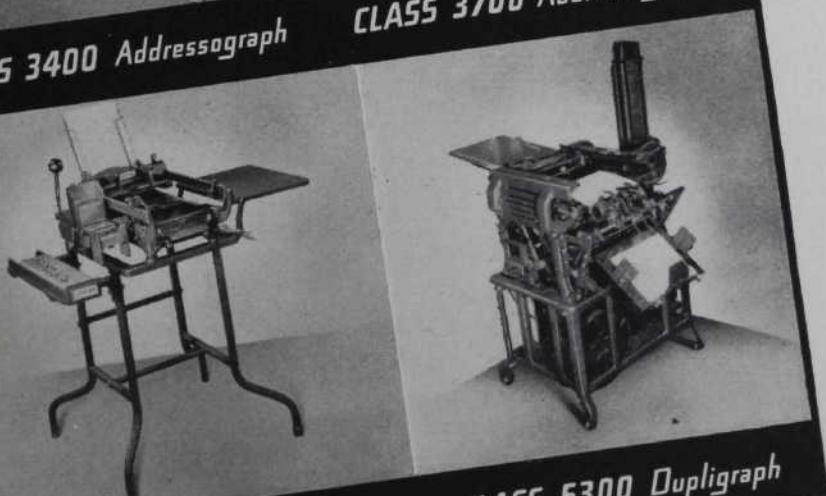
CLASS 1900 Addressograph
WITH AUTOMATIC FEED



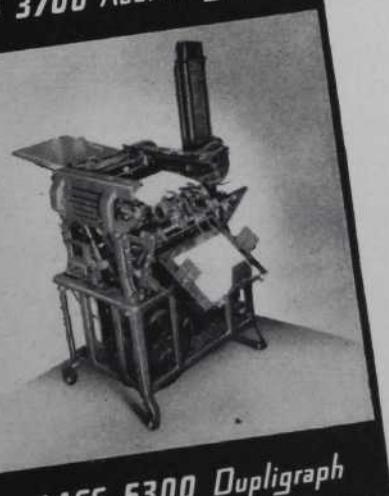
CLASS 3400 Addressograph



CLASS 3700 Addressograph



CLASS 5200 Dupligraph



CLASS 5300 Dupligraph

- ... in speeding up necessary routine
- ... in preventing costly mistakes
- ... in simplifying procedures
- ... in reducing costs and expense
- ... in building sales and good-will

• Never in Addressograph's 48 years of making and saving money for business has there been preparedness for service equal to today's.

Never has the scope of Addressograph Methods been so broad. Starting as a mere addressing machine in 1893, it was applied to one routine task after another until today Addressograph Methods produce results businessmen want in all office and factory departments.

Never has the range of Addressograph Equipment been so wide. With a complete line of hand, electric and automatic machines to fit any purpose, Addressograph is today standard equipment for every kind and size of business.

Never has the business methods training of Addressograph Representatives been so extensive and thorough. From actual case records these men are constantly learning new and better ways for saving time and money in all routine work.

Addressograph Methods, Machines and Men are ready to serve YOU in ways you may not now believe possible. We invite you to discuss possible efficiencies and savings with the qualified representative near you. Call ADDRESSOGRAPH SALES AGENCY (listed in principal city telephone books) or write for information to

ADDRESSOGRAPH-MULTIGRAPH CORPORATION
Cleveland, Ohio

ADDRESSOGRAPH-MULTIGRAPH OF CANADA, LTD., TORONTO
Sales Agencies in Principal Cities Provide Service Everywhere



Credits change overnight, too

When Boundaries Change . . .

The map of the world changes overnight. The financial map of your customers also changes overnight. Every day more than 1,500 changes are recorded. No credit manager, howsoever astute, can project infallible judgement 30, 60, or 90 days into the future. No fair-minded executive expects him to do so. Yet, the vital problem still is —*will they or won't they pay?*

AMERICAN CREDIT INSURANCE

relieves the credit department of responsibility after goods are shipped. At a reasonable cost, it throws a line of defense around your receivables, fixing a "boundary line" which limits credit losses. "American Credit" reimburses you promptly on delinquencies as well as insolvencies. Capital is not only safe, but liquid, too. Selling is *profitable*.

Our new booklet "Business Stability and Profits" explains the function of American Credit Insurance in terms of your own business. Your copy will be sent immediately, upon request. Address Dept. N.



AMERICAN CREDIT INDEMNITY COMPANY OF NEW YORK

First National Bank Building, Baltimore
J. F. McFadden, President

OFFICES IN PRINCIPAL CITIES OF THE
UNITED STATES AND CANADA

MEMO . . .

for Busy Readers

Family Income Spurting Upward

HOUSEHOLD of average urban worker saw monthly income rise nearly \$7 in last six months of 1940, while expenses remained at 1936 levels. Favorable margin between average earnings and living costs is largest in the eight-year records kept by the Northwestern National Life Insurance Company. Record department store trade volume, and improved instalment collection ratios reflect greater net buying power in the hands of the American consumer.

Living costs sank to a low for the year in October, have stiffened a trifle since, but have been far outstripped by rise in industrial pay checks. Measuring effects of pay roll and living cost changes on pocketbooks, the company reports that an average employed worker's family of four, with earnings of \$120 at average 1933 pay roll levels and spending same amount for living expenses at average 1933 retail prices, had to pay \$131.11 in June, 1936, to maintain the same standard of living; meanwhile the family pay check had climbed to \$133.92.

In June, 1940, the same standard of living for a family of four cost \$131.86, while the family's pay check had climbed to \$150.86; by year's end, monthly pay check had rocketed almost another \$7, to \$157.49, while living costs had actually fallen \$1.10 from June levels, totalling \$130.76 in December, 1940, or virtually the same as in mid-1936.

Increase in pay rolls in recent months has meant net increase in American spending power, company asserts, as total living costs are same as a year ago, and really less than last summer. Minor increases in clothing and fuel, and in miscellaneous household items, have been offset by decline in food prices.

DEMAND for office space in New York's financial district is greater now than in 1929, despite persistent downward trend of trading on stock exchange. More than 185,000 executives and office workers occupy 20,000,000 square feet of office space compared with approximately 175,000 persons in 17,000,000 square feet in 1929, the supposed peak. Securities and stock brokerage firms rent 18 per cent of the total occupied space in the district, with 1,504 firms using 3,665,000 square feet of space and employing in July, 1940, approximately 33,000 persons. Businesses other than securities and stock brokerage firms have absorbed equivalent of all space relinquished by such firms since 1929, plus 3,000,000 square feet of new space.

Contribution of banks is significant, for the district now includes 75 large American and foreign banks employing 35,000 persons and occupying 4,000,000 square feet of office space. Two-thirds

"It has
to be GOOD
to get me
so excited!"



When are You going to try

Chrysler's Fluid Driving?

"Of course I had heard about *Fluid Drive*... who hasn't? But I didn't know it was so wonderful until we got our new Chrysler!

"This Chrysler has so much power, you just put it in 'high' and start off for anywhere... it pulls out of snow banks and mud holes... climbs hills... dashes away from a standing start... travels all day without your touching clutch or gearshift!

"Of course *Fluid Drive* is the magic that enables you to do all these things... but it's the enormous power of that Spitfire engine that gives you the extra thrill.

"Fred says that the Vacamatic transmission has some-



thing to do with it, too... it changes the power ratios, or something, like the variable-pitch propellers on a plane.

"Anyway, it's perfectly amazing that so much power can be so smooth and silent... and so economical!

"Why shift gears... when *Fluid Driving* is so much simpler, smoother, and easier? The minute you drive a Chrysler, you'll agree with me that there is no substitute for *Fluid Drive*... there just isn't anything in the world like it!

"I don't see how anybody can afford to buy any new car without seeing and driving a Chrysler!"

* Tune in on Major Bowes, Columbia Network,
Thursdays, 9 to 10 P.M., E.S.T.

FOR SAFETY!

Why Chrysler includes a Safety Clutch with Fluid Drive!

The Safety Clutch is like a lifeboat on a ship. You will use it very seldom, but you're mighty glad to have it when you need it. A very valuable safeguard for parking... for maneuvering your car in close quarters or dangerous places!

BE MODERN... WITH FLUID DRIVE—
BUY CHRYSLER!

"Ah, a money machine!
Do the coins come out here?"

—says the
Little-Man-Who-Wants-to-Know



"Well, in a way. This is a NATIONAL Window-Posting Machine. It *makes money* for many, many banks—by doing more work, better and faster—

"See! It posts ledger, pass-book and journal records all at once . . . accumulates totals . . . provides positive control . . . and all records are *locked in*.



"NATIONAL makes other machines, too, a complete line for all types of businesses—for listing, posting, proving, analyzing, bookkeeping, check writing, remittance control . . .



"And more! Whatever your business problem, see NATIONAL first! These machines *pay for themselves* many times over. They are made by the makers of NATIONAL Cash Registers."

INVESTIGATE
National ACCOUNTING MACHINES!

THE NATIONAL CASH REGISTER COMPANY • DAYTON, OHIO
Cash Registers • Posting Machines • Check-Writing and Signing Machines
Bank-Bookkeeping Machines • Typewriting-Bookkeeping Machines • Analysis Machines
Postage Meter Machines • Accounting Machine Desks • Correct Posture Chairs



Copyright, 1941, The National Cash Register Co.

of Manhattan's lawyers are situated in the financial and City Hall areas. This means 12,000 lawyers downtown compared with 13,000 in all of Manhattan in 1928. There are 6,072 lawyers on Broadway from Nos. 1 to 401; 2,615 on Wall, Broad and Pine Streets, short streets all. Law firms occupy nearly as much space in the financial district as securities and stock brokerage firms—3,000,000 square feet against 3,665,000.

More than 100 railway and utility companies use in excess of 1,000,000 square feet. Mining, mineral, chemical, machinery and equipment concerns occupy 1,350,000; oil companies and dealers in coal, coke and the other commodities, 1,400,000; shipping and transportation, 1,080,000; engineers, architects, builders and insurance, accounting and real estate concerns, 1,780,000; and offices of the United States and foreign governments, 500,000. This group and other smaller interests occupy more than 8,000,000 square feet, have approximately 72,500 persons on local rolls.

Figures appear in a report by Schlang Bros. & Company, real estate managers, New York. Report concludes that 84 per cent of available space south of Cortlandt Street was rented at December 31, 1940, that major vacancy is below tenth floor level, that rate of space absorption is continuing at accelerated rate, that rates for desirable space will harden long before October, 1941, when 90 per cent of total space, including virtually all tower offices, is expected to be occupied.

Time Rules
Liquor Credit

RESTRICTIONS on length of time liquor wholesalers and manufacturers may give retailers to pay for alcoholic beverages are now in effect in 18 states and District of Columbia. Federal Government's time limit on credit is 30 days.

Restrictions are intended to prevent wholesalers, manufacturers and distillers from using credit to reduce competition and obtaining undue control over retail outlets; also, to make more enforceable the restrictions most states have put on retailers' extension of credit to consumers, according to a survey by the Illinois Legislative Council.

Three states—Arizona, Arkansas and Kentucky—require cash sales. Indiana, South Carolina and Tennessee provide for maximum credit terms of ten or 15 days. In Georgia, credit may be extended until Thursday of the week following the purchase, while in New York and the District of Columbia credit may be extended, respectively, to the tenth and fifteenth of the following month. Seven states—Colorado, Connecticut, Maryland, Minnesota, Missouri, New Mexico and Rhode Island—set 30 days as the maximum credit period.

Under the laws of Illinois, Massachusetts and Nebraska, 90 days' credit may be offered to retailers. The federal rule of 30 days maximum credit applies in these states to interstate sales by wholesalers to retailers, and to such intrastate sales as, without such regulation, would adversely affect interstate commerce.

In the ten other states which permit liquor sales by private dealers and have no specific restriction on credit to re-

tailers, federal regulation is the only governmental limitation. In 16 other states retail establishments are operated by the states as a monopoly. In Wyoming the wholesale business is operated by the state while retailing is in private hands. Kansas, Mississippi and Oklahoma prohibit the sale of distilled spirits.

DEFENSE MAKES, BREAKS JOBS

ECONOMIC consequences of diversion of millions of civilians to military life through defense requirements are scaled in current forecasts as business disturbances of minimum proportions. General conclusions hold that, apart from budgetary problems involved in financing so costly an undertaking, necessarily spread over a period of years, complex readjustments of industry must be made that will take account of changes in employment and relocation of workers and their families. Problems relating to reorganization of business personnel will be especially prominent in early stages of defense preparations.

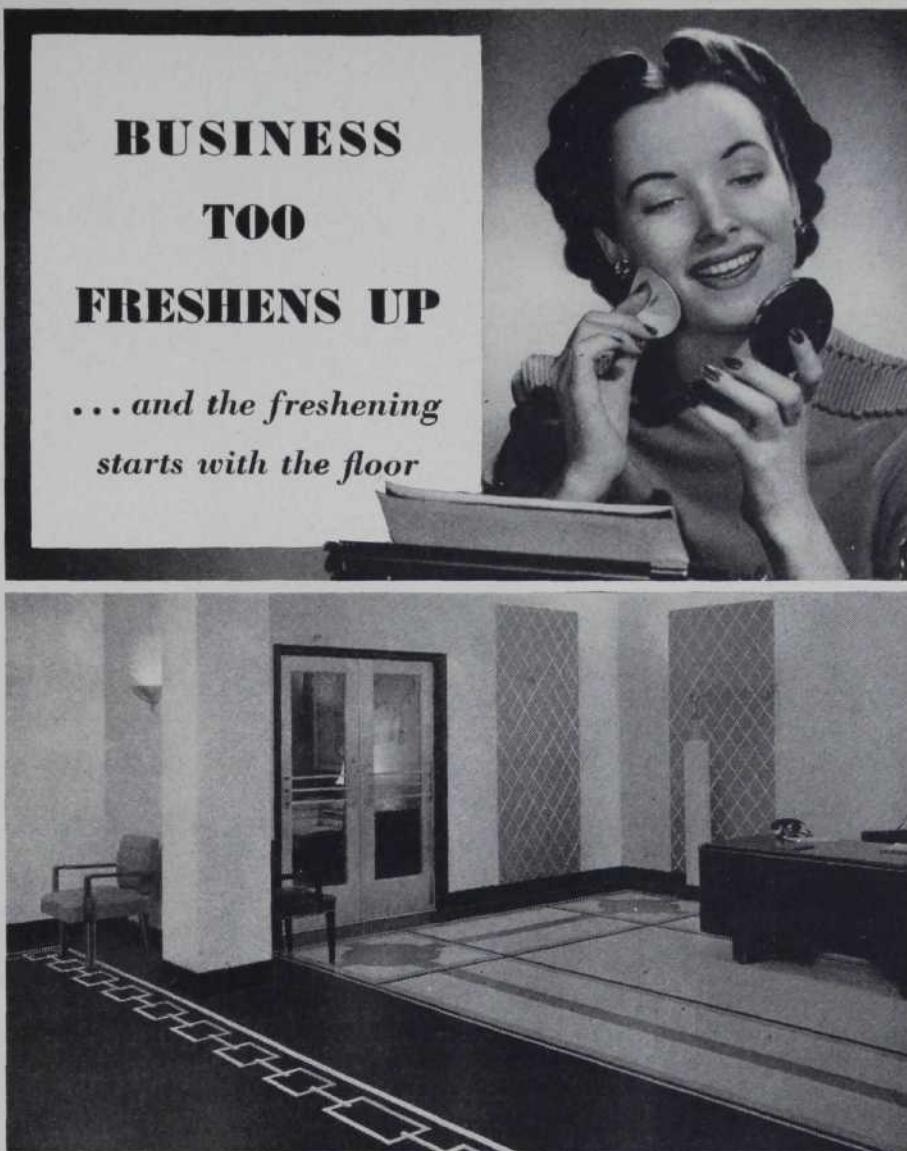
Substantial reduction in volume of unemployment is expected, as gradually persons now without work either are selected for training or are able to find jobs vacated by draftees. Not all these vacancies will be filled promptly. Even if the drafting of 1,000,000 men should be immediately reflected in work opportunities for another million now unemployed, result would represent only a minor part of total potential expansion of employment that may be induced by defense preparations as a whole. Reversal of trend in this aspect of unemployment when men, after receiving scheduled training, resume former business positions is possible; but broad effects would depend on conditions too far in future to be subject to present appraisal.

Once stabilization of the numbers of men in training or active service is reached and so long as no substantial reduction of military forces is ordered, simultaneously and in approximately equal numbers some men will be entering training and others will be resuming civilian status. Accordingly, any such general readjustment of employment as would be reflected in a net broadening of unemployment need not be reckoned among the probable consequences of the new procedure.

What proportion of the unemployed will be required in the various occupations affected by the defense program cannot be clearly foreseen. Reemployment will be influenced by the availability of skilled persons among the jobless and the provision that will be made where necessary for training workers required in new positions.

Indicative of contemplated scope of reemployment is an official statement that 5,500,000 idle workers are available for defense industries. These workers are registered by offices affiliated with the United States Employment Service. A classified inventory of their skills has been compiled, with designated geographical grouping. Combined influence of conscription and other defense preparations holds no present promise of fully solving unemployment problem, but moves in that direction.

BUSINESS TOO FRESHENS UP *... and the freshening starts with the floor*



WHEN CLIENTS ENTER the executive offices of Mr. C. V. Starr, President of The United States Life Insurance Company, New York, they are greeted by a smart Armstrong floor. The foreground is black with feature strips and border of white and pearl gray. The offices were decorated by Mrs. Helen Graham Park, New York decorator. Floors installed by C. & J. Zimmerman, New York.

Not long ago, these smart offices were nothing more than loft space. Then they were freshened up! Completely remodeled! And as usual, Armstrong's Linoleum played an important part in the work.

Because of their gay color and smart design, Armstrong floors form the basis of remodeling work. They help attract trade, save cleaning costs, and stand up under heavy traffic.

Ask your local linoleum merchant to show you how little it costs to freshen up your business home the Armstrong way. And write for our new, color-illustrated book. Sent free (40¢ outside U. S. A.). Armstrong Cork Co., Floor Div., 4103 Coral St., Lancaster, Pa. (Makers of cork products since 1860)



IMPRESSIONS OF YOUR BUSINESS are sure to be favorable when you welcome customers with an attractive floor of Armstrong's Linoleum. Note the clever inset in the Armstrong floor shown here in the reception room of Mr. Starr's executive offices. Dignity, comfort, long wear, are also features of these modern business floors.

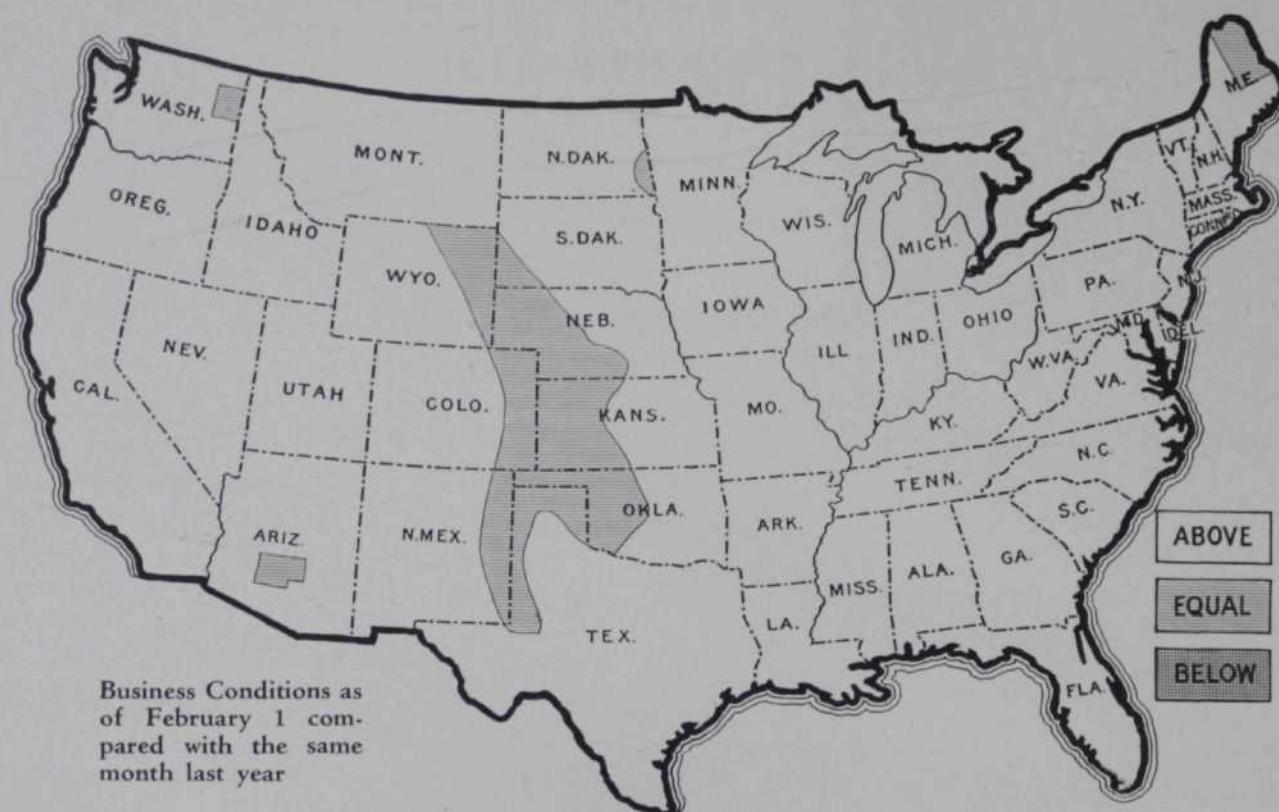
ARMSTRONG'S LINOLEUM FLOORS

Custom Laid or  Standard Designs

PLAIN • INLAID • EMBOSSED • JASPE • CORK TILE • ASPHALT TILE
RUBBER TILE • ARMSTRONG'S LINOWALL and ARMSTRONG'S QUAKER RUGS

The Map of the Nation's Business

By FRANK GREENE

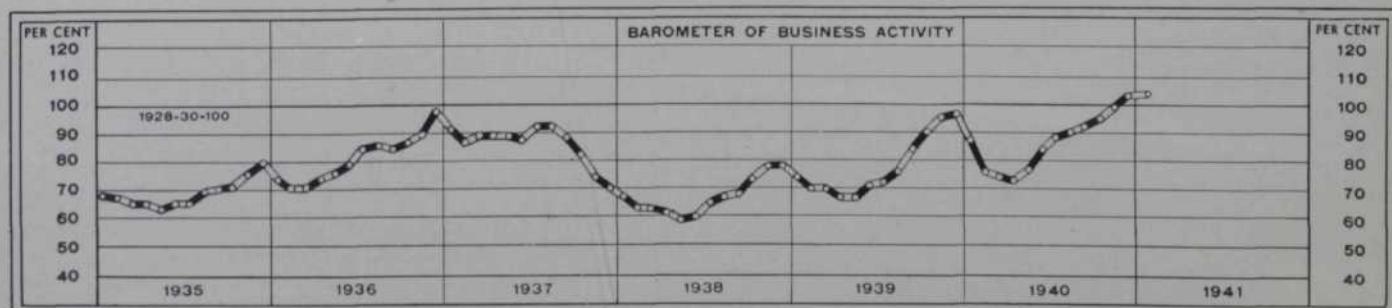


PRESSURE of the expanding defense program superimposed on normal industrial activity stimulated nearly all lines of business in January. Forward buying continued to pile up steel orders despite increased capacity production. Railroad and passenger traffic continued to improve, indicating best returns for carriers since 1931. Past records for January were exceeded in both sales and output of automobiles, while manufacturers expanded plant capacity to handle armament orders.

Electricity output held its ten per cent gain over last year and defense construction carried engineering awards 129 per cent above 1940. Woolen and cotton mill activity was the highest since the last war and domestic copper production lagged behind demand.

New financing fell off from December and security prices declined as transactions shrank to 1919 levels. Commodities generally held steady, although agricultural products lost ground at the month end. Wholesale and retail trade continued to gain, approaching 1929 peaks.

Country wide effects of the defense program are reflected in the brightening of the Map



Continuing the upswing noted during the eight months from May to December, the general level of business activity in January indicated a further slight rise to the highest for more than a decade past

"SMOOTH AS STILL WATER"

Levelcoat*

Fully Coated Printing Papers

Providing all the beauty of costly printing papers at the price of ordinary paper!

NEW this year, *Levelcoat** printing papers already are making a thrilling new chapter in the history of printing art. *Levelcoat* papers present an entirely different formula printing surface, beautiful, super-smooth, rich appearing — specifically perfected for fine-screen half-tone and brilliant color work. *Levelcoat* papers help make printed pieces wake up and sell! But that's not all —

Advertisers who have been paying a premium for superior printing results can make important savings at no sacrifice of quality by specifying *Levelcoat* papers because *Levelcoat* provides all the beauty of costly printing papers at the price of ordinary paper.

On the other hand, if you have a small budget for printing which has limited you to not-so-good appearing catalogs, circulars and brochures, you now can step-up to *Levelcoat* quality paper at little, if any, extra cost, and benefit by a mighty respectable job!

Seeing is believing . . . Write Kimberly-Clark for proofs of printed results on *Levelcoat* papers—results heretofore obtainable only with high-cost printing papers. You'll agree, these new-type papers do most for the money! They are available through your paper merchant. If you prefer, inquire direct.



*TRADE MARK

Trufect *

Levelcoat Paper

Made super-smooth by a new patented coating process for high-quality printing.

Kimfect *

Levelcoat Paper

Companion to Trufect at lower cost. For use where quality remains a factor, but less exacting printed results demanded.

Multifect *

Levelcoat Paper

Where economy counts in volume printing, this grade does a splendid job.

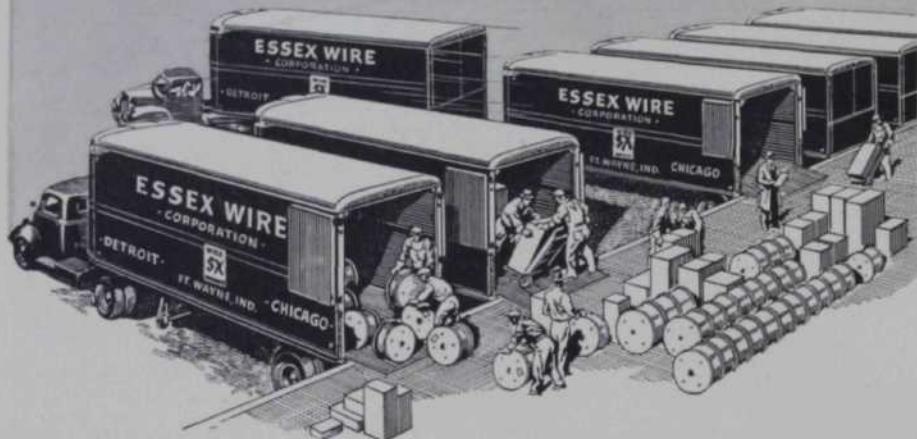
KIMBERLY-CLARK CORPORATION • Established 1872 • NEENAH, WISCONSIN

NEW YORK—122 East 42nd Street

CHICAGO—8 South Michigan Avenue

LOS ANGELES—510 West Sixth Street

HOW ONE SUCCESSFUL COMPANY Profits with **TRUCK-TRAILER** **METHOD OF HAULING!**



ESSEX WIRE NOW HAULS 3 TIMES AS MUCH PER TRIP—SAVES MONEY—REDUCES INVENTORIES—IS ABLE TO GIVE BETTER SERVICE TO CUSTOMERS

Faced with the necessity of lowering its hauling costs, the Essex Wire Corporation experimented back in 1932 with its first Fruehauf Trailer. The move proved sound from the start and as the Company expanded—which it rapidly did—so, too, did its fleet of Fruehauf Trailers until fifteen are now in service.

Bigger Loads—By using Trailers, the Essex Corporation finds it possible to pull far larger loads than could be carried with trucks of the same size. A truck will easily pull three times the load that it can carry. This results in important savings since fewer trucks are required to handle the same tonnage.

More Flexible—Essex has been able to maintain more flexible service between the main plant at Detroit and branch plants and warehouses throughout the Middle West. Largely this is the result of Truck-Trailer operation. In many industries one truck serves three to five Trailers, permitting simultaneous loading, unloading and hauling.

Smaller Inventories—Essex has found it possible to reduce inventories at branch plants, since, at a moment's notice, a Truck-Trailer can be economically routed with a capacity load to the point where stocks are needed.

Prompt Delivery To Customers—The Essex Corporation has frequently been able in emergencies to render unusually prompt service to customers, due to the

extreme flexibility of its inter-plant Truck-Trailer hauling system. Stocks can be quickly moved from plant to plant for customer's convenience or delivered direct to destination.

YOU SAVE IN EVERY WAY

It's easy to see why Truck-Trailers are being used with such success in more than 100 lines of business.

Your investment is less, operating and upkeep costs are lower and replacement costs are less. Owners report savings of from 30% to 60%.

Why not look into the Truck-Trailer method of hauling? A phone call will bring a trained Fruehauf man with all the facts.

World's Largest Builders of Truck-Trailers
FRUEHAUF TRAILER COMPANY • DETROIT
Sales and Service in Principal Cities

By bringing about lower transportation charges, motor transport has put millions of annual savings into the pockets of the public.



FRUEHAUF TRAILERS
"Engineered Transportation"

Factory Output Steadily Mounts

PHYSICAL output of American manufacturing industries increased in the 38 year period between 1899 and 1937 by 276 per cent. On the average, counting in good years and bad, manufacturers raised their physical output at rate of 3.5 per cent a year faster than total national product—which includes, besides fabricated goods, unprocessed foods and fuels, services and new construction.

These conclusions are among the most significant appearing in Solomon Fabricant's "The Output of Manufacturing Industries, 1899-1937," published by the National Bureau of Economic Research, New York, as part of a project financed by the Maurice and Laura Falk Foundation of Pittsburgh.

A public gain—from industry

BETWEEN 1899 and 1937 country's population increased from 75,000,000 to 129,000,000, or 73 per cent. Since manufacturing output increased by 276 per cent in this period Mr. Fabricant reasons a gain of approximately 120 per cent in manufactured goods available *per capita*. As this figure makes no allowance for changes in quality of products, which have undoubtedly improved on the average, rise of 120 per cent understates rather than overstates *per capita* gain in factory-made goods.

In the 38 years included in the study, factory output changed not only in volume but also in composition. The forest products group ceased to be largest contributor to the nation's manufactured goods: in 1899 it accounted for 16 per cent of the flow of products from American factories, but in 1937 for only four per cent. Textiles also declined in relative importance. Chemical products increased their share of the aggregate, as did transportation equipment and printing and publishing enterprises.

Large increases, from 1899 to 1937, are recorded in output of transportation equipment, petroleum and coal products, chemical products, paper products, and products of the printing and publishing industries. Physical output of each of first two groups was more than 12 times as large in 1937 as in 1899. Chemical products, paper products, and printing and publishing grew six- or seven-fold. In contrast, physical output of forest products group actually declined by seven per cent, while leather products rose only 69 per cent, less rapidly than population, which increased by 73 per cent.

Divergence in growth of individual industries was notable. A revealing illustration of disparity in trends is provided by the transportation equipment group. Although this group as a whole made enormous gains, most industries manufacturing transportation equipment lost ground. Great exception was the automobile industry. Its output in 1937 was 1,800 times greater than that of 1899—sufficiently greater to overbalance losses in such industries as carriages and

wagons, railroad equipment and shipbuilding.

In the recent period, 1929-37, output of manufacturing continued to rise, but more slowly than in the three decades preceding. Increase in total factory output was three per cent in 1929-37, whereas gain in population was six per cent.

Commenting on the significance of his index, Mr. Fabricant points out that manufacturing is only one segment of the entire industrial system. To quote:

The total national product of manufacturing and non-manufacturing industries combined more than doubled between 1899 and 1937, rising some 30 per cent more rapidly than population during the 38 years. One reason for the increase in the *per capita* national product was, of course, the great advance in manufacturing industries. But the converse is true as well: the relatively greater rise in manufacturing output was in an important sense a consequence of the growth in the total national product.

During the period under consideration the increase in average *per capita* income led to an even greater rise in average *per capita* expenditure on factory-made goods. There was a shift from domestic to factory production of such articles as bread, canned food and clothing, as housewives cast off the burden of domestic chores. In some of their household duties women were increasingly aided by manufactured appliances such as washing machines and vacuum cleaners.

The rise in standards of living was accompanied also by greater fabrication of consumer goods passing through factories. Working in the other direction was the tendency for expenditures on services to rise with standards of living. Apparently, however, the service industries did not progress rapidly enough to cause a decline in the fraction of income expended on manufactured consumer goods.

Another set of influences making for relative growth in manufactures may be traced to the forces underlying the increase in productivity, which in turn was responsible in large measure for the rise in total output. The industrial division of labor grew finer. Manufacturing industries took over some of the work formerly done in other industries. Mechanization of agriculture is a vivid example of this interchange of functions. The increased division of labor is to be observed also in the shift toward factory slaughter of meat animals and toward factory production of butter.

A third reason why manufacturing rose in relation to other industries is connected with the preceding one. The growth of population, and the consequent pressure upon natural resources, exerted a deep influence on the character of our foreign trade. (Tariffs here and abroad also played a part, of course.) Instead of exporting as much wheat and cotton as formerly, we turned to the export of more automobiles and machinery in order to secure products not made in this country.

In discussing individual manufacturing industries, Mr. Fabricant notes that "a decline in the aggregate price received for the services of labor, capital and other agents of fabrication has often been associated with an exceptionally rapid rate of growth in output. Those manufacturing industries which have forged ahead of others in production are usually the ones in which prices have been cut in relation to the average for all manufacturing."



If MAILING means \$\$ Overtime...

It doesn't take many extra hours at time-and-one-half to offset an operating budget . . . If mailing is the cause of overtime in your office, the Pitney-Bowes Postage Meter can be a budget saver.

Printing Meter postage directly on envelopes takes less time than moistening and sticking ordinary stamps . . . The Meter prints stamp, postmark and your own advertisement, seals the envelope flap—all in the turn of a die. The Meter provides any kind of postage needed, takes less time than separating and sticking ordinary stamps. Even on mixed mail—letters, bulky packages, parcel post, the Meter often does the job in half the previous time.

The Postage Meter gives absolute postage protection, automatically accounts for postage, too. Metered Mail doesn't wait in the postoffice for postmarking or cancelling, can make earlier trains.

It doesn't take much overtime mailing to pay for a Postage Meter . . . to end mailing overtime. Call our nearest office for a demonstration in your office . . . or send the coupon—now!

PITNEY-BOWES POSTAGE METER CO.

1326 Pacific St., Stamford, Conn . . . Branches in principal cities. Consult your telephone directory . . . In Canada—Canadian Postage Meters & Machines Co., Ltd.

Pitney-Bowes Postage Meter Co.
1326 Pacific St., Stamford, Conn.

- Mail me "The Great Grimblestone Survey"
 When may we have a demonstration?

Name _____
Company _____
Address _____



No Business Can Escape Change

Despite defense orders business keeps one hand free for new civilian products

1 • A TYPEWRITER roll is now made of a transparent plastic with a small light arranged so that stencils and other difficult work are illuminated from beneath and easily read. The roller is hard, yet resilient, and has a long-lasting smooth surface which makes possible a large number of carbon copies.

2 • AN OFFICE desk is now made only 29 inches high. It is said to allow easier reading and writing and greater general comfort. It is designed to make no sacrifice of drawer room or knee space, is made of steel and plastic.

3 • A NEW duplicating machine is able to produce both offset and relief duplicating—that is, to reproduce from offset plates or from type, electrotypes, or rubber plates. The change-over can be made in ten minutes. It can be had with a suction feeder and double sheet eliminator. It handles work up to 10" x 14" at 5,400 sheets per hour.

4 • AN INBOARD motorboat designed to compete with outboards in price has a seamless hull of plywood, light water-cooled motor developing 8-10 horsepower, which drives the 15 foot boat from slow trolling speeds up to 12 or 15 miles an hour.

5 • AN ALL-ELECTRIC typewriter is now made that automatically proportions the space allowed to the width of the letter struck. Either a book type or a fine line typewriter type is available. It is said to turn out neater, more legible copy and to save up to 15 per cent in space.

6 • BEARINGS that are slightly flexible are now made essentially as two concentric metal tubes with a seamless rubber filling the space between. The bearing surface may be bronze or other metal. They are recommended for noise and vibration elimination, for shock absorption, for compensation for slight misalignment.

7 • HEELS for milady's shoes are now made of a plastic which is said to present advantages over wood—they are hollow and lighter, have a slight resiliency, are tough, won't scuff, split or chip. They are made in several colors. Special leather lifts are snapped on without nailing.

8 • A NEW process for treating redwood bark fibers makes them fire-resistant and adds to their value as a blown insulation in both the cold storage industry and in the domestic field.

9 • AN ILLUMINATED pushbutton eliminates hunting for house number and doorbell at night. It can be used for private homes, apartments, doctors' or dentists' offices. It comes in a brown plastic case with small light which illuminates nameplate, house number, and the transparent pushbutton itself.

10 • FOR TAKING medicine there is a short-handled, full-capacity teaspoon made of a tasteless and odorless transparent plastic. A flat base on the stub handle permits it to be set down without spilling.

11 • A NEW FORMULA for skin protection where synthetic finishes may be irritating also acts to prevent perspiration on the hands and thus protect delicate parts such as precision bearings and airplane parts. It is said to be not harmful, easy to apply and easy to remove.

12 • LADIES' GLOVES are now available made from one of the synthetic yarns. They are a knit fabric resembling heavy silk in appearance. The yarn is completely non-absorbent and ordinary stains as grease or lipstick can be removed by wash-

ing in soap and water. After washing, they may be dry and ready to wear in 40 minutes.

13 • A NEW DEVICE for expanding pistons is sufficiently economical that any repairman may use it. It is a hand tool which depends on two wheels—one inside, one outside the piston—for its expanding action.

14 • A UNIT HEATER is now made in cabinet form for heating offices, lobbies, stores and the like. It has quiet blower fans, motor and heating coil in one unit for connection with steam or hot water system. All piping and electrical connections are made within the cabinet. It is said to have a capacity three to five times that of a convector.



15 • FOR protecting feet against wet or cold there are foot socks made of a transparent rubber hydrochloride which are waterproof and air-tight. They are thin, pliable, extremely lightweight, tough, semiplastic; are slipped on over stocking feet before putting on shoes.

16 • A NEW PORTABLE testing device for rating of film type wire insulation works by determining the time it takes a mechanical "finger nail" to wear through to the metal under the insulation. It stops automatically when finished. An electric motor furnishes the power and only a few inches of wire are required.

17 • RAPID ACTION toggle pliers with a throat of one and one-half by three inch capacity permits work to be held several inches from the edge of the sheet or board. The pliers have a pressure ratio of 93 to one, lock automatically when the handles are squeezed, but release instantly when desired.

18 • A NEW PAPER finishing process makes possible individual watermarks for any quantity or grade of paper. It is suitable for business stationery, forms, checks, documents.

19 • AN ALTIMETER for automobiles similar to those in airplanes is now made at an economical cost. It shows quickly the height of hills or relative height of other places on the route. It can be set to show change in barometric pressure overnight.

20 • DESIGNED to move tote boxes, drums, and the like a factory mule with a single driving and steering front wheel, a low platform, a turning radius of 38", will go through narrow aisles and doors. It is powered by a small gasoline motor but can be obtained in an electric model.

—W. L. HAMMER

Editor's Note—This material is gathered from the many sources to which NATION'S BUSINESS has access and from the flow of business news into our offices in Washington. Further information on any of these items can be had by writing us.

Helping America Prepare!



BENDIX
ECLIPSE
PIONEER
SCINTILLA
STROMBERG
ZENITH

Pausing to take an inside test measurement on an aircraft auxiliary generator engine at the Bendix, New Jersey plant of Eclipse Aviation Division, Such Skill and Will, to make a creed and a career of Precision, are America's priceless assets.

Split-second performance aloft is born of *split-thousandth precision here*

AMERICA'S swift strides to security are best measured in thousandths of an inch! Multiplied at hundreds of massively delicate machines like this one, by skillful, careful Bendix craftsmen, such accuracy spells American Air Supremacy.

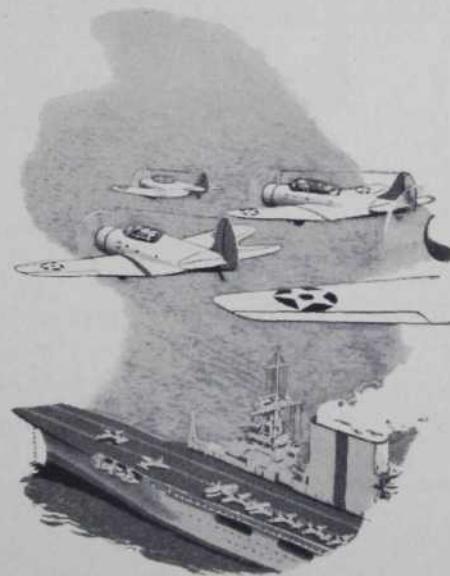
The keen minds and the deft fingers of twenty thousand loyal citizens are busy today in fourteen big Bendix plants, guiding the finest tools procurable, to produce the most nearly perfect aircraft units we can create.

Aircraft instruments bearing the honored name, *Pioneer*, deserving and holding, by proved reliability, the trust of all men who fly. *Eclipse* aircraft electrical components of enormous variety, but of a single, very high,

standard of excellence. *Bendix Aircraft Radio* equipment, providing our airmen with some of the most startling safeguards yet achieved by science. *Scintilla Aircraft Magneto*s, affording ignition efficiency no foreign source on earth has matched.

There are other great names in this Bendix group—*Cory* for ship equipment, *Bendix Drive* to start faithfully millions of engines, *Stromberg* and *Zenith* in carburetion, and the name of *Bendix* itself for brakes, landing gear, control systems and universal joints.

We believe that you will be glad to know these facts . . . and we pledge you our very best endeavors—for America and all that she stands for.



Bendix

AVIATION CORPORATION

Plants at: BENDIX, N.J. • SOUTH BEND, IND. • BROOKLYN • ELMIRA, N.Y.
SIDNEY, N.Y. • BALTIMORE • NEW YORK • DETROIT • TROY, N.Y.
PHILADELPHIA • WAYNE, MICH. • BURBANK, CAL. • WINDSOR, ONT.



WHAT! MOVE WHOLE CITIES?

Impossible? Yet it's a fact! Not in space — IN TIME! — the important thing to YOU, Mr. Skipper!

**IMPROVED SANTA FE SCHEDULES
BRING MANY MARKETS 24 HOURS
CLOSER TO CHICAGO • THE EAST •
THE WEST • THE SOUTHWEST!**



*... Service
provides
this!*

- *Sixth morning delivery at Pacific Coast points from Chicago.*
- *Fifth morning delivery at Pacific Coast points from St. Louis, Kansas City, St. Joseph, Atchison and Leavenworth.*
- *Third morning delivery, Chicago to Galveston, Houston, and Beaumont. (Less carload merchandise.)*
- *Second morning delivery, Chicago to Oklahoma City.*
- *The only overnight freight service, Chicago to Kansas City.*
- *Free pickup and delivery service on less carload merchandise.*

Santa Fe Service MOVES with the speed and dependability that keeps you clear of traffic problems... Ship via Santa Fe whether a trainload, carload or a single package.

J. J. GROGAN
FREIGHT TRAFFIC MANAGER, CHICAGO, ILLINOIS

Me and the Consumer Movement

(Continued from page 46)

so the consumer literature told me, any time you find a business group effectively organized you can be sure it is a Royalist "pressure group." If we organized consumers didn't watch out, these Royalist and unscrupulous "pressure groups" would use us for the "furthering of their own selfish ends."

The only way we consumers could save ourselves from business "pressure groups" would be to form a bigger and better "pressure group." Really, I hadn't known there were so many consumer pressure groups. Sometimes these "good-of-the-cause" pressure groups, who are out to out-pressure business, are led by a government agency; a sort of Sir Lancelot, out to save all us lily-white consumer Elaines. How soon we "organized consumers" could come into consumer heaven, when we would destroy all the powers of darkness and evil now wielded by big, little, or any private business, depended on just one thing:

How soon consumers will achieve equality in the market depends on pressure exerted by the consumer.

Practicing and preaching

IT BEGAN to look like maybe this consumer movement for all its high and holy purpose, might have clay feet. One of the hangovers from my individualist upbringing, and from which I hadn't as yet been able to cleanse myself was that anybody who preached a thing surely should be expected to practice it. Yet here were the various consumer agencies yelling to heaven against "pressure groups," and in the next breath telling us "poor consumers" that our goal could only be reached by "pressure exerted." Frankly—that reasoning floored me.

So I began to wonder just who, and what, lay back of the consumer movement.

All I could learn, from much study of consumer literature, was that the aim of this movement, and I quote from an article that plugged the movement, is:

To control both quality and profit by the operation of retail business themselves.

That was the day I dumped my consumer movement literature into the waste basket. Because every good thing in the way of material goods that I have enjoyed has come to me through the profits, and sometimes mighty skimpy profits, of retail business.

So I began to examine with horror and distaste this movement whose sole object was the "control of the profit system, and the operation of retail business" by the consumers themselves.

You can be sure I began to dig deeper trying to learn who was back of this thing—who was providing the free advertising that put consumer literature in every small-town library, and every

home that would send a three-cent stamp to certain government agencies. I learned:

Government agencies are actively aiding in the work of such (consumer) groups.

So—it was "government agencies" who were "actively aiding" the organizations whose sole aim is to throw out private enterprise.

Furthermore, it was certain governmental agencies which "supplied information about consumers' cooperatives."

These apparently innocent and innocuous "consumers' cooperatives" when broken down and stripped to the skeleton, were what?

Those organizations through which consumers are attempting to control both quality and profit by the operation of retail business themselves.

The consumer literature said it was wicked and a "wanton waste" to spend money for advertising. I ask:

What about this wicked and wanton waste—taking taxpayers' money to pay for government advertising, where indeed the "poor consumer" isn't as yet conscious that he's being milked and getting nothing for it?

I shall never be asked to give my side of the story before any consumers counsel division, either individually, or as "spokesman for a group of neighbors."

I shall never know the joys of living in the "privileged group" of Greenbelt, where you can rent a \$16,000 home for \$40 a month.

No—but as a consumer, in the honest-to-God low income brackets I am fed up with this organization that is taking in so many American women who are indeed "buying blind" in to this movement that would take from them the very system that allows them to be consumers. "Pity the poor consumer"—indeed. It's about time she woke up.

"We find Air Travel a great asset"



Says ALBERT H. MORRILL,

President, The Kroger
Grocery & Baking Co.,
Cincinnati, Ohio

that business on the Pacific Coast or in Texas couldn't have reached a satisfactory conclusion were it not for Air Transportation.

"We find Air Travel a great asset in conducting our business."

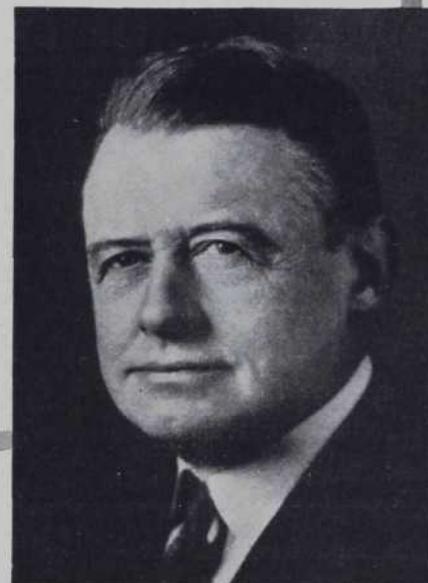
"I have been a constant user of Air Transportation for the last twelve years. Personally, I consider it safer today than travel by motor.

"Our company has four thousand stores scattered over nineteen states and managed by twenty-four different branches. In conducting our business, efficient organization and complete co-operation are essential.

"Instructions and matters of policy must be given quickly and clearly, and in person—often not possible without the use of planes.

"It has happened frequently

This endorsement given without compensation



AIR TRAVEL IS EFFICIENT AND ECONOMICAL

More and more each year business men are coming to recognize the intrinsic value of Air Travel.

They see it as a road to more efficient business methods—a way to get more things done faster and more effectively at less cost.

Because trips are 'shorter' by air, these men spend less time in travel, which means fewer overnight 'hops' and less travel expense, with more time for productive work. They gain hours, days, and even weeks, depending on the length of the trip.

And they cover territory quickly and efficiently with a minimum of travel fatigue.

More efficient business methods are worth investigating. Why not phone your local Airline office and have a representative call and explain how Air Travel can benefit your business?

AIR TRANSPORT ASSOCIATION
135 South La Salle Street, Chicago, Illinois
This educational campaign is sponsored jointly by the 17 major Airlines of the United States and Canada, and Manufacturers and Suppliers to the Air Transport Industry.


IT PAYS TO FLY

SPEED DELIVERY OF RUSH ORDERS BY AIR EXPRESS! You can fill rush orders with "telegraphic" speed to any section of the country...overnight...by specifying 3-mile-a-minute Air Express. Low rates include special pick-up and immediate, special delivery for all shipments, large or small, heavy or light. Phone Air Express Division, Railway Express Agency.

Eviction from Home

EVICTION from their homes is faced by 140 farm families in Alaska who are behind in their mortgage payments.

Another case of the rich mortgage holder demanding his pound of flesh? No, the evictor in this case is a federal Government subsidiary, the Alaskan Rural Rehabilitation Corporation. It seems the Alaskan pilgrimage for the underprivileged has not fared well. Of the original 200 families transplanted from the states, only 94 remain, according to a report coming from this outpost of civilization. A few of the individualists like Walter Pippel (see "Vision of Utopia Revised at Matanuska," N. B., Nov. '38) could take care of themselves but most of the colonists were not good Pilgrims.

Unlike the Mayflower Pilgrims, they were handicapped by a paternal government.

"Junk" Jewelry



A lapel ornament in which all figures are made of plastic

A DRAGON fly in bright vari-colored enamel whose four wings move at the slightest touch, a pelican, symbol of charity, whose gilt wings jeweled with make-believe rubies and pearls is a copy of a Renaissance original—these are manifestations of a new art and a new style which has developed a business of astonishing proportions in the past 15 years.

The trade calls these ornaments, often tawdry, sometimes beautiful, by the collective name of "junk jewelry." The artists who make the finer pieces call them "costume gems." Both types follow the modern trend in fashions, which aims at endowing every woman with glamour.

Until a decade and a half ago no fashionable woman would consider wearing anything but genuine jewels. Today both the parlor maid and the débutante wear ornaments which may be classified roughly as "attention getters" or what the professional buyers call "conversation pieces," designed to bridge the first awkward seconds in a momentous encounter. Even if she has a pint pitcher of diamonds, the glamour girl of 1941 still adores the silly little trifles that don't even dent a five dollar bill. For an investment of less than six dollars her sister across the railroad tracks can wear a complete set of costume jewelry.

Shortly after World War I craftsmen in metals and stone began experimenting with imitations, but "junk jewelry" business in America remained negligible until it fell into the hands of the Parisian *"haute couture."* In 1927 one far-sighted dress designer in Paris startled the fashion world by presenting a collection of crystal jewelry as part of the wardrobe on exhibit. The craze caught on—and "couturier junk" had arrived.

The "junk jewelry" center is in New York, with designers, whether employed on permanent staffs or as free-lance artists, working in almost perfect anonymity. The development of American designers and American sources of materials, especially plastics, which show the faceting and luster of gems, or the gleam of moonstones and cabochons, were important substitutes in 1940 for materials formerly imported and now unavailable.

—JULIETTA K. ARTHUR.



Clips, bracelet and earrings with simulated gems form a matching set



A dragon fly lapel pin of colored enamel flaps its wings



A sparkling jewelry ensemble with imitation rubies



One whiskey that should go down in history....
THE 1941 BOTTLING OF FOUR ROSES

WE KNEW, LONG AGO, that the 1941 Bottling of Four Roses would be a whiskey of extraordinary excellence.

We knew—because of the exceptional care with which we distilled the special whiskies for today's Four Roses, five years ago and longer. We knew—because of the added knowledge and skill with which we slowly brought them to maturity.

But no one—not even we ourselves—could have foreseen their present magnificence. Of all the fine whiskies

we've made or known—in our 76 years' experience—none ever possessed such marked qualities of greatness.

So, no matter when you last tasted Four Roses, a new and thrilling experience awaits you in the 1941 Bottling. New and thrilling because never before have you tasted such soft and glorious flavor.

Four Roses is a blend of straight whiskies—90 proof. The straight whiskies in this product are 5 years or more old. Frankfort Distilleries, Inc., Louisville & Baltimore.

EVERY DROP IS 5 YEARS OR MORE OLD



A PREVUE

OF ALUMINIZED AMERICA

What is an Aluminized America? What will it mean to you? Why is this just a "prevue"?

This is a "prevue" because Aluminized America is not quite here. But very close. When the all-absorbing demands for national defense have been met, we shall really see an Aluminized America.

Then there will have been built up in this country such a capacity for turning out aluminum that industrial designers, architects, engineers, and city planners will be able to carry out ideas they have been dreaming for years. They will be able to apply to their work the amazing things that have been done with aluminum in other fields to cut costs, resist corrosion, safeguard health and make life more pleasant.

And in what part of the American scene will this dream come true?

In all of it . . . on the farm and in the city, in the home and in the office, in recreation and in transportation, in industry and in science.

On the farm, wider use of aluminum will give more freedom in the operation

of mechanized implements, new safety for foods, longer life for paint.

Already the city planner can tell you of applications of aluminum that will wipe out traffic bottlenecks, improve the removal of sewage and waste, and make the life of the city dweller lighter, brighter and more efficient in dozens of ways.

Already architects are putting pencils to plans that will further aluminize the home, cut fuel costs, save food,

lighten labor and add beauty.

Already industrial designers are dreaming of new ways to revolutionize old products and give the world new ones that will owe their very existence to the economic advantages of aluminum.

All this, when America has met her needs for national defense; all this when freedom is assured and the nation can turn again to the pursuits of peace. Right now, defense comes first . . . and if you find it difficult to get all the aluminum you want, when you want it, you will know that aluminum has gone off to defend your home and your country.

To meet defense requirements, Aluminum Company of America as part of the industry, is undertaking now the expansion which would normally be done in the next two decades. This will mean more than doubling the production facilities it has built up in over half a century. It will mean an unprecedented annual production of over seven hundred million pounds of aluminum . . . which, when defense is achieved, will some day usher in the untold benefits of a truly Aluminized America.

Here are 12 Economic Advantages of Aluminum. They Will Bring a Lighter, Brighter, More Efficient Life.

Light Weight	Workability
High Resistance to Corrosion	Non-magnetic Non-toxic
High Electrical Conductivity	Strength (in alloys)
High Reflectivity for Light and Radiant Heat	Non-Sparking Appearance
	High Scrap and Re-Use Value
	High Conductivity for Heat

ALUMINUM COMPANY OF AMERICA



MAN TO MAN

in the

MONEY MARKETS

By CLIFFORD B. REEVES

How to Sell Listed Securities

of a dividend would have been audible.

The total trading volume for the day was only 396,000 shares. In one issue—Standard Oil of New Jersey—7,800 shares were traded. Investors seemed to have little interest in any listed stock.

Then at 3 o'clock, when the market closed, a syndicate headed by Dillon, Read & Co., began the distribution of 500,000 shares of the same Standard Oil stock, offering it at the same price at which it had closed on the Exchange that day. Within two hours, buyers had been found for the entire 500,000 shares, valued at about \$17,250,000. These were not new shares, but outstanding shares offered for sale by a large estate.

Thus this group, between 3 and 5 in the afternoon, sold "off the board" in a single listed issue, 100,000 more shares than were traded that day on the floor of the exchange in all listed issues. Stated another way, they sold about 64 times as much Standard Oil stock as was traded that same day on the floor of the Exchange.

This new method of distributing listed issues "off the board" has cost the Stock Exchange a great deal of business in recent months. Since the middle of December more than 50 large blocks of listed stocks have been sold in this fashion, involving about 4,750,000 shares. This includes a huge block of Libby, McNeill & Libby stock which was registered with the S.E.C. Most blocks that have been distributed have not been registered.

Off-the-board deals in recent weeks have included 170,000 shares of North American Company, 53,000 shares of Texas Corporation, 179,000 shares of Consolidated Edison, 80,000 shares of Montgomery Ward, 42,500 shares of Union Pacific and many other large blocks of listed stocks.

This is business that ordinarily

ON January 16, things were so quiet on the Stock Exchange, that even the passing

would be transacted on the floor of the Exchange. But the Exchange market has grown so thin that it can no longer absorb blocks of such size without unwarranted breaks in the price level. There are no longer enough buyers in the Exchange market, so institutions or other investors who must liquidate large holdings find that they can do it to better advantage in the unlisted market through a syndicate of dealers who go out and find buyers for the shares.

The new method shows clearly the value of salesmanship as compared with merely waiting for buyers to appear. Exchange members argue, with some justice, that, for the small commission they receive for the execution of orders, they cannot afford to do an active selling job. But, if buyers must be found by thorough sales methods, maybe the Exchange should do something about its commission schedules that will enable brokers to do the kind of a job that investors seem to want. The seller of securities is not so much interested in the amount of commission he pays, as he is in the net amount realized on the sale.

The rapid growth of off-the-board sales proves again that capital, like water, seeks its own level. If the listed market is strangled so that it can no longer perform its intended function, then people will trade securities in the streets, if necessary, on their own terms.

If the trend continues, the Exchange may find that it is merely maintaining expensive machinery to establish official prices for over-the-counter sales of listed issues.

The ironic part of the situation is that the Exchange itself must give its approval before listed stocks can be sold in this way. Although permission has been refused in a few cases where the listed market was adequate, the Exchange has felt it necessary to grant most requests because of the dearth of bids on the floor of the Exchange. While the off-the-board business boomed, listed trading in Janu-

ary was the poorest for any similar month in the past 22 years, and the price of stock exchange seats sank to a new low of \$26,000.

The successful distribution of large blocks of securities by this new method has proved that, contrary to general opinion, the small investor is willing to buy common stocks if an effort is made to interest him. Most of the big blocks that have been sold have gone, not to the big investing institutions, but to many thousands of small individual investors.

Some stock exchange members see a ray of hope in the fact that many large holdings are being broken up and are going to a large number of small investors, many of whom may soon resell and thus create additional stock exchange business. But such a hope for future business is small compensation for the business that is now being lost.

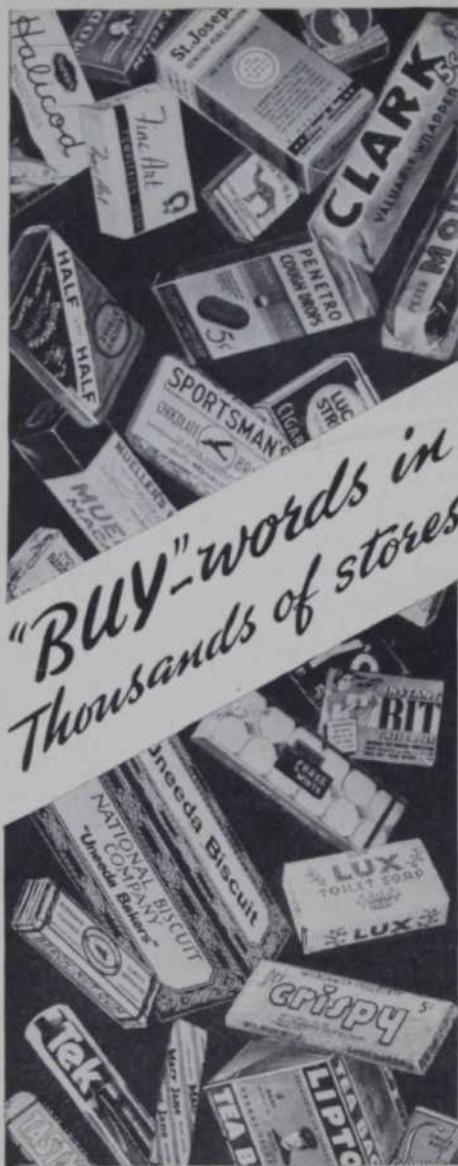
The liquidation of large British holdings of American securities has accounted for most of the off-the-board deals in recent weeks, and some observers feel that, when this is completed, the emphasis on this new method of distribution will die down. The general feeling, however, is that, now the method has proven its efficacy, it will continue to be used whenever large blocks are involved and will always be a drain on stock exchange business.

F. D. R. to Spurn F. R. B. Proposals?

IN THE financial district, the betting is that the Administration will not approve or support the plan recently proposed by the Federal Reserve Board for control of inflation. The report, which was made jointly by the Governors of the Federal Reserve Board, the presidents of the 12 Federal Reserve Banks and the Federal Advisory Council, recommended that all further gold coming into the country be "sterilized"; that the powers of the President to increase the price of gold, or to issue \$3,000,000,000 of greenbacks, be rescinded; that the Treasury be deprived of its present power to issue silver certificates against foreign silver bought at low prices; and that the Federal Reserve Board be empowered to double the present bank reserve requirements, so as to cut down excess bank reserves that now stand at a record total of more than \$6,000,000,000.

In addition, the report recommended that future issues of Government bonds be sold to individual investors, rather than to the banks; and that taxes be substantially increased, to keep the federal deficit as small as possible.

Most bankers are heartily in favor



"Buy-words in
Thousands of stores

What you see here is but a small part of the steadily growing number of products that have been given the right "sales winning" dress by our machines.

And, as the picture grows, ideas for improvement multiply . . . We have far more to offer you today than ever before—in variety of wrapping forms that lend individuality and distinction to a product, and in mechanical innovations which clip your cost-dollar to a minimum.

Consult our PACKAGING CLINIC for sound advice backed by 27 years of service to the packaged goods leaders.

★ DEFENSE WORK ★

We, as well as other machine makers, expect heavy demands for defense work . . . You will help your Nation, yourself and us by anticipating your own requirements for machines or service as far in advance as possible.

**PACKAGE
MACHINERY COMPANY**

Springfield, Massachusetts

New York Chicago Cleveland Los Angeles Toronto

of these proposals, but doubt that the Administration will support them for these reasons:

First, many Government financial experts do not feel as strongly as the Federal Reserve officials about the possibility of serious inflation.

Second, a reduction in excess bank reserves might put an end to the present era of low money rates. This might make it difficult for the Treasury to finance the defense program. In this connection, it was significant that the Government bond market broke sharply on the announcement of the Federal Reserve proposals.

Third, the Treasury is probably fearful of the effect that any substantial decline in Government bond prices would have upon the portfolios of banks throughout the country.

Fourth, enactment of the Federal Reserve proposals would in effect take the control of the money market out of the hands of the Government, where it has been in recent years, and lodge it again with private bankers.

British-Owned Firms to Be Sold

FOR many months now the British Government has been liquidating the holdings of its citizens in American securities, to produce dollar balances needed for the purchases of armament and supplies here. The British holdings in 115 different security issues have been completely liquidated. Substantial amounts remain to be sold, but not nearly enough to provide Great Britain with the dollar funds she needs.

So attention is now being turned to the possibility of selling for cash the assets of American subsidiaries of British corporations. This transfer of the ownership of many large corporations from British to American hands is expected to give rise in coming months to a series of very large investment underwritings.

Certain American investment trusts have also expressed keen interest in the purchase of various British-controlled companies now operating in America.

Among the large American business organizations owned or controlled by the British are the American Viscose Corporation, the largest producer of rayon; Lever Brothers, one of the largest soap manufacturers; the Dunlop Tire & Rubber Co., Thomas J. Lipton, Inc., Brown & Williamson, a tobacco company; Yardley, another soap producer; Alfred Dunhill, and hundreds of lesser known concerns.

Sir Edward Robert Peacock and J. C. Hanbury-Williams, both of whom are Directors of the Bank of England, recently arrived from London to investigate the possibility of selling such companies to American investors.

They may also attempt to negotiate the sale of large American real estate holdings owned by British citizens, such as those held by the British

Beware of artificial labor costs

**Wesley M. Angle, President
Stromberg-Carlson Telephone Mfg. Co.**



WIDE WORLD

"An increase in wages based on more efficiency in production and a consequent decrease in the amount of labor necessary to effect production is one thing, but a raise due to some specific governmental action taken without respect to all its results is another. Wrong in principle, the effect of any considerable number of such actions would be to start the upward spiral of all costs and prices. This would lead to excessive living costs and make further increases in income necessary to meet them."

branches of the Astor and Goelet families.

The English emissaries have announced no definite plans, but it is expected that, if the transactions prove feasible, they will invite various investment banking syndicates to bid for British-owned companies and that the banking groups will then resell the securities to American investors. The dollars realized from such transfers of ownership will be kept here by the British, and English investors will be paid by their Government in sterling, or in British bonds, the money due them. Thus a huge "war chest" of dollar funds will be created here for the purchase of war materials.

Dollar balances are getting to be a highly important economic factor in the present European struggle. Realizing this, the American Government has done everything in its power to tie up all balances that might be used to aid the Axis cause. As Holland, Belgium, Denmark, Norway, France and other countries fell before the Nazi juggernaut, the American funds of all citizens of such countries were "frozen," to keep them from falling into the hands of the aggressors. No such funds can be withdrawn without the approval of this Government.

Germany and Italy have certain balances of their own in this country, but these were thought to be relatively small. Now it appears that the Axis Powers have been disguising their U. S. balances by keeping them in the names of Swedish, Swiss or other neutrals. So plans are now being discussed for "freezing" all foreign funds on deposit in this country, including those of neutral, as well as belligerent, nations.

With a complete embargo in effect, the United States could then grant permission for withdrawal of funds by friendly nations, and refuse such permission in other cases. There is a lot more to "all aid short of war" than meets the eye.

Common Stocks for Income

IT used to be said in Wall Street that whenever stock yields fall far below bond yields, "gentlemen prefer bonds."

Now the situation is reversed. The average yield of highest-grade corporate bonds is currently about 2½ per cent. On the other hand, many high grade common stocks are selling at prices that yield five, six and seven per cent or even more. Consequently, many investors who are hard put to make their funds yield an adequate income, are turning to common stocks, not with an eye to speculative profits, but because of their liberal yield.

British investors have always bought common stocks on the basis

250 Cool Drinks for less than 1¢*



Completely New Frigidaire Water Coolers offer you Meter-Miser Economy!

For plenty of cool water at extremely low cost, call in Frigidaire—the company with over a billion dollars worth of refrigeration experience!

The result of this vast experience is the economical new Frigidaire Meter-Miser mechanism, now available in five new coolers. In addition, new Frigidaire water coolers have Magic Action Bubbler, compact size, optional foot pedal at slight extra cost, attractive design, temperature selection control, and many other features. Phone nearest Frigidaire Water Cooler Dealer for demonstration! Or write Frigidaire Commercial and Air Conditioning Division, General Motors Sales Corporation, Dayton, O.

Meet the Meter-Miser, simplest refrigerating mechanism ever built

Here is the amazing Meter-Miser, result of Frigidaire's great refrigeration experience. Proven economical and dependable in over 2½ million Frigidaire refrigerators and water coolers. Quiet, efficient, permanently sealed and oiled. Protected for 5 years against service expense. See it today!



Economical Frigidaire Water Cooler
For Average Size Offices

*Supplies 250 4 oz. drinks for less than 1¢, based on 3¢ KWH. Cools 3 gallons per hour from 80° to 50° in an 80° room. Also a complete line of other models.

CAUTION! It isn't a genuine Frigidaire unless it bears the Frigidaire nameplate!



Call in the Expert Call in Frigidaire

The Greatest Name in Refrigeration

"say that again"



**"That's right! Only \$4750
for America's finest
portable adding machine"**



UNBELIEVABLE when you hear about it—still more amazing when you see it operate! Yes, Victor's "straight" portable adder—in 10-key or full keyboard—costs only \$47.50.

Here's an engineering feat climaxing Victor's 23 years of leadership in providing low-cost figure efficiency for every type of business. Whether you direct a large corporation or operate your own corner store, Victor adding machines will help you add up profits.

Victor offers portables in three capacities. Also a wide range of standard electric models, starting at \$114.50. Phone your Victor representative for a free test trial today or write *Victor Adding Machine Co., 3900 N. Rockwell St., Dept. N-3, Chicago, Ill.*

Victor's newest portable adds and subtracts. **\$79.50**



**VICTOR
ADDING MACHINES**

of income. Americans, however, were taught to buy stocks for profit. In recent years, because they were convinced that speculative profits were difficult to obtain under present conditions, they have eschewed the stock market entirely.

In spite of large gains in earnings in 1940, industrial stocks, as a group, are lower than they were a year ago. Yields ranging between six and ten per cent are available on the common stocks of many leading companies whose dividends are well covered by their earnings. Investors who believe this affords them an attractive opportunity argue that the general trend of corporate earnings is up, not down, which gives reasonable insurance against reduction in present dividend rates. Taxes, they point out, while they may keep corporation earnings from increasing substantially, are not likely to result in any serious reduction of the present rate of earnings.

At current yields, common stocks would be attracting enormous amounts of investment funds except for the fact that many investors feel that war conditions create too many uncertainties to justify common stock commitments.

No Monopoly in Underwriting

THERE may be many sound reasons for recommending competitive bidding for corporate security issues, but certainly the existence of "monopoly" is not one of them. In the current controversy on that subject, impartial observers with no axe to grind feel that the Public Utilities Division of the S.E.C. made the poorest possible case for itself when it based its recommendations for competitive bidding primarily on the claim that a monopoly tended to exist in the field of security underwriting.

Many who read the report probably expected that, at the subsequent hearings before the S.E.C. small security dealers from all parts of the country would appear and describe the way in which the big banking houses snatched the bread from their mouths. Instead, the great majority of small dealers who appeared as witnesses recommended a continuance of the present system.

The Public Utilities Division had based its claim of monopoly on the fact that a small number of underwriting houses "manage" so large a proportion of all new security underwritings. The inference was that, when a given house "managed" a \$50,000,000 issue, that house did all of the business represented by the total issue.

The fact is that, in nearly all cases, the firm that manages such a deal,

actually underwrites only a small part of it. The balance is underwritten by the other members of the syndicate, which sometimes has 50 or more members in all parts of the country.

Members of this underwriting syndicate usually divide the business still further by reselling part or all of their bonds to other firms which have no underwriting commitment but act merely as retail selling outlets. In a large underwriting, it is customary for several hundred firms to participate in one way or the other. It is difficult to find any other business in which so many competing units share in any given piece of business.

The large investment houses that head the majority of the important underwritings have probably been unwise in not laying greater stress on the size of the syndicates included in their offerings. An advertisement announcing a new issue of bonds may carry the signatures of only half a dozen of the largest participants. If such advertisements carried the names and addresses of 50 or more firms, a better understanding of the true nature of the investment underwriting business might result.

New Kinds of Trust Agreements

BECAUSE of the steady decline in interest rates during recent years, a man with a modest estate now finds it difficult to make trust arrangements that will assure his family a satisfactory income. It takes a lot more money than it did ten years ago to produce a given amount of annual investment income.

This is creating a problem for trust companies. In some instances, trust arrangements planned in earlier years have been cancelled because the income that can reasonably be expected under present conditions is no longer sufficient for its intended purposes. Furthermore, many people who in past years might have trusted their funds are now turning to annuity plans under which payments of income and principal can be combined on a schedule that will assure beneficiaries of the necessary minimum annual return. Such individuals feel that a trust arrangement is no longer suited to their purposes. Actually, trust agreements can be written to accomplish annuity terms.

The trust companies are known to be studying this problem in an effort to adapt their services to the needs of the times, and at least one, the St. Louis Union Trust Company, is actively promoting a new type of trust plan under which payments of income and principal can be combined under pre-determined schedules, to produce the necessary annual funds for beneficiaries.

Today's Insurance

For Tomorrow's Profits



YOU PAY NO PREMIUM for These Added Advantages in Illinois

IN mapping out your industrial program for the next five or ten years, plan to tie-in your progress with that of Illinois Industry. Industry in this State is maintaining, and accelerating, its steady upward course—sound growth which is the result of the combination of advantages and opportunities which Illinois offers manufacturers.

Look at these advantages you will gain by locating your new factory, branch plant, or distribution base in the State of Illinois. They insure more profitable operation for most industries.

LABOR—Illinois has a large skilled labor supply, noted for its stability and harmonious relations with management, and experienced in a wide variety of trades and occupations.

MATERIALS—Illinois produces abundant supplies of unprocessed agricultural products, has large deposits of minerals, including sand, limestone, clay, and coal, and is close to sources of supply of steel, ore, and other vital raw materials.

MARKETS—The central location of Illinois affords direct contacts with the national and foreign markets, and the huge Middle West Market is within overnight freight shipping radius.

TRANSPORTATION—Illinois has direct rail, highway and air transportation to every part of the Nation. Many industrial communities are served by both the Great Lakes-St. Lawrence and Lakes-to-the-Gulf Waterways.

POWER—Power facilities in Illinois are ample for today's needs and are geared to tomorrow's requirements. This State has the largest installed generating capacity of any State in the Middle West, with a total exceeding two and one-half million kilowatts.

Write today for a special report on the advantages of Illinois as they apply specifically to your business. Please describe the nature of your business and list, in detail, your requirements in labor, materials, or any other production or distribution facilities, in order that a truly practical and informative report may be prepared and submitted for your consideration. Your inquiry will, of course, be kept confidential. Write—

ILLINOIS DEVELOPMENT COUNCIL • STATE HOUSE • SPRINGFIELD, ILLINOIS

ILLINOIS

THE STATE OF BALANCED ADVANTAGES

DETEx

Guards the Ramparts!

..lest FIRE, THEFT
or SABOTAGE
cripple Industry!

Above the drone of machines there's a sudden, splintering crash! Workers gaze with horror at the wreckage of an assembly line. (A cunning saboteur has done his work well.)

The Chief Draftsman arrives in the morning to find his office ransacked. Steel cabinets have been forced. Vital plans are missing. (A hired thief has accomplished his mission.)

Workmen arrive at the factory gate to find the building burned to the ground. (Was it accident—or arson?)

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Dept. N-3
Home Office: 76 Varick Street, New York
Sales and Service in All Principal Cities

Unelected Rulers Shape Our Laws

(Continued from page 32)
be cheaper to pay than fight. The only citizen who would be willing to test what happened in Bushwah district, for instance, is a member of another local school board who wants the same thing. He can be silenced with indirect purchase of school buses expressly prohibited by the law.

There is, practically, no possibility of criminal prosecution. Doesn't the administrator have an attorney's opinion? He can prove his good intentions. And, if someone does defeat him, in court, then he has merely made an error in judgment.

It must be admitted that elected lawmakers in the present day haven't always protected the citizen. As an example we have a portion of the National Labor Relations Act which was upheld recently by the Supreme Court in an opinion by Justice Black.

The court held, in effect, that while it might be unfair to deny an employer the right of court review of his case, the law gives the Labor Relations Board the right to do certain things arbitrarily. The employer must seek redress in Congress, not the courts.

Thus, the elected Congress has gone so far as to abdicate its own power to unelected individuals comprising a government bureau. Strangely, the first step in

all dictator ridden countries has been abdication of legislative power—something no American Congress would do knowingly.

But Americans have come so far in accepting this insidiously growing, illegitimate legislative system that Congress handed part of its power to a Labor Board. Tomorrow it can, and may, hand similar power to an Employers', or a Consumers', or a Medical Board.

The pitiful thing is, of course, that it makes enemies of citizens and the men who represent their government—men whom the citizens hire and pay with taxes. Men who support government, who pay for protection, must defend themselves against government.

The man in the street, laborer, farmer, employer, business man or professional man, must prove he is no criminal. He must defeat charges lodged by sincere government officials who believe they are only doing their duty—duty dictated by their own enthusiastic consciences and supported by unelected propounders of new laws, who masquerade even from themselves, no doubt, as legal advisers.

Students of American government have suggested often that the constitutionality of laws be tested in courts before they are passed, to save time and money. But knowledge of the constitutionality of basic law means little when

First requirement is confidence

Henning W. Prentis, Jr.
President, Armstrong Cork Co.

"Fortunately for us it was the genius of American free enterprise that created mass production and the same genius that invented it can and will excel in its use in the production of defense armament. But the speedy production of armament is not enough. We must have a national economy that is strong, confident and well balanced. A nation whose economic activities are based on free enterprise cannot function in an atmosphere of uncertainty, distrust and fear.... The faith of the American people needs to be revived and renewed after the buffeting to which it has been subjected."



DETEx
WATCHMEN'S CLOCKS
NEWMAN • ECO • ALERT • PATROL

men most concerned must wait for administrative "interpretations" before they can be sure what it means.

Corporation attorneys, for instance, must advise managers how to operate legally under literally thousands of such rules, some directly contradictory to each other, and almost none of which ever has been tested in court.

No one, of course, would suggest that government—or business—can be operated in this complex age without the best legal advice obtainable. Even members of Supreme Courts disagree resoundingly upon what can be done.

Make law departments responsible

BUT Americans who believe in their government, who demand unbiased courts even though they do disagree, might well consider the problem of obtaining unbiased regulations from bureaus. The first step, undoubtedly, will be to restore the law business to the legal departments of governments—take legal advice out from under the thumbs of administrators.

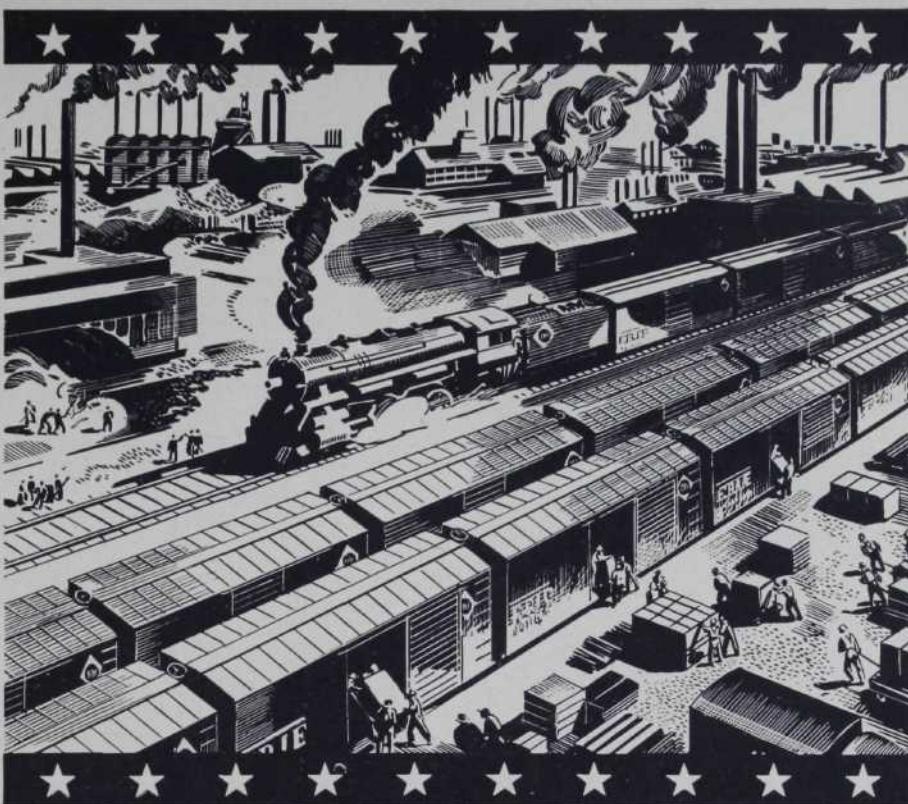
For, while the United States Supreme Court has stretched the Constitution to cover many things undreamed of by its framers, it never has disturbed the basic structure of a government of checks and balances. Since our government is becoming more bureaucratic daily, it is but logical that the checks be applied to bureaus, too!

There are possibilities of saving in government costs in such a program, as Oklahoma legislators found. That state eliminated two attorneys in the Department of Public Safety, two in the Banking Department, two in the Highway Department, one in the Governor's office, and one in the State Board of Industrial Welfare—and gave the Attorney General four more assistants. The trade, four for eight, was possible because peak loads of legal work could be distributed more evenly through the year.

The real importance of the move, however, is that the directors of these departments, at least, must henceforth call for legal advice upon the Attorney General, a man who owes them no personal loyalty. The Attorney General in Oklahoma is elective. His job depends on the will of the people and political fortunes—not the will of a bureaucrat.

Thinking Americans are alarmed at the growth in size, power, duties, and expenses of all government agencies, from top to bottom. It is well that they should be, since many students of political history believe governmental collapses, revolutions, perhaps "dark ages" in civilization itself, have come when government grew too top heavy—when taxpayers no longer could support bureaus and citizens no longer would tolerate interference with their private lives.

America is faced with an unusual growth of bureaucracy. Much of that phenomenal increase undoubtedly can be traced to our unseen system of lawmaking, founded in outright, illegitimate seizure of power. Our elected spokesmen can take it back now and restore the legislative third of the American system of checks and balances. It undoubtedly will be much more difficult in the future.



We're Ready—and Willing!

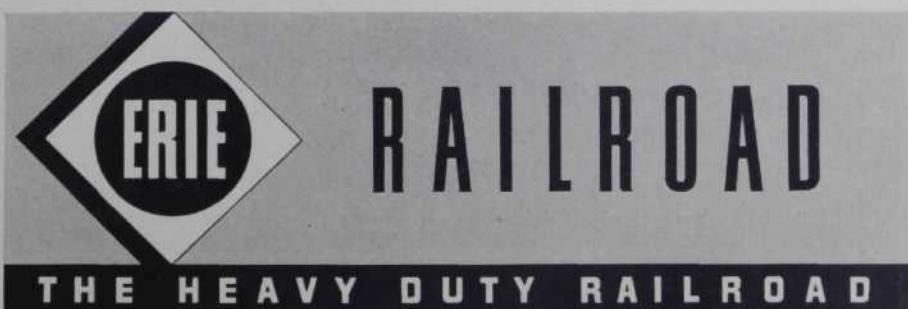
- Things happen fast along the tracks where the fast freights roll. We were getting ready for a national emergency long before there was an emergency.

And today we're helping in every way possible to speed the job of National Defense. Spanning the very heart of the Nation's "arsenal," Erie is the conveyor belt of America's defense industries. Erie delivers the goods.

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**Carl Howe, Vice President, Erie Railroad,
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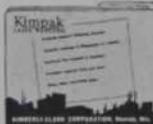
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Company _____

Address _____

Attention of Our Product is

War Orders—And Business As Usual

(Continued from page 24)
learn, and all our department managers have come up from our own ranks.

What is to become of the unskilled workers on demobilization seems to us a problem for governments, because it will arise in all countries, and be too big for individual concerns to solve. By fitting our business to survive, we think we are doing all that can be done with present knowledge of how long the war will last and how it will terminate.

It is not easy, in a business like ours, to draw a line between war and peace production.

Many other manufacturers must find the same difficulty, because war work ranges all the way from direct Government contracts for mass production of airplanes and tanks, to subcontracts, let by subcontractors, for simple parts.

Goods for war or for peace?

PRESENT-day total war, with the home population in the battle lines, requisitions practically everything we use in our daily lives. In our own plant, watching a given machine in operation, turning out rubber faucet washers, or rubber cushions for office chairs, we could not be certain whether the production was for national defense or "business as usual." Because, Uncle Sam is building barracks—the washers may go into the sinks; and the office work entailed by war may be taking our cushions.

But, after a year's experience with war orders, we have been able to draw a clear line for ourselves, and say, "On one side of this line we will produce everything the Government asks for to further the defense program—let Uncle Sam decide; and on the other side, we will continue to produce for our regular customers, and build our business so that it will suffer as little shock as possible at demobilization."

We have three different kinds of production, and the lines drawn between them help us decide between war goods and peace goods.

It is in our production of industrial parts that war orders have wrought the greatest changes. This department makes all sorts of special parts for aircraft, automotive, oil equipment, farm implement and machine-building industries. Our engineers work with such manufacturers, developing rubber parts, and this is as important as the actual production.

Before the first British orders were placed for military planes, we were making a lot of rubber for transport and private planes, so the aircraft manufacturers turned to us for engineering service as well as production for military planes.

Although we speak of war orders, we haven't a single one!

That is, we do no direct contract work for our own or any other Government, but deal entirely with manufacturers who have government orders for military planes and other war equipment.

We are not subcontractors, either, because that generally means routine production of parts to fit specifications, or a pattern, while we are entrusted with a good deal of the creative work on airplane parts, much of it guarded for military reasons.

Another department of our business affected by war work is our special products division, in which we develop rubber and part-rubber specialties for inventors, engineers and manufacturers. They come to us for our experience as well as our facilities and in many cases, after the invention has been perfected, we manufacture it for them. Because war stimulates invention, this department is busy.

It is in our rubber merchandise department that we make the "business as usual" products, several thousand different rubber articles for the plumbing, hardware, automotive, drug, office supply and other distributing trades. We sell nothing to the public, and nothing to retail merchants—all these goods go out to wholesale houses. If a wholesaler in an eastern city orders an extra 100,000 faucet washers, he may be buying to fill a government order for barracks, or for a war work housing project, or because normal demand is increasing among plumbers and building managers—we have no way of knowing.

The penny washer that you screw onto the kitchen tap, to stop it dripping, is a very small item to look at, but we find that it has become a sort of marker in the war work problem.

It makes quite a story.

Oil wells in California have been going deeper and deeper—they have lately gone deeper than three miles.

New rubber compounds

WE MAKE rubber equipment to go down in oil wells, and when the two-mile level was reached, tough rubber to resist heat, pressure and abrasion was needed. A pump piston ring, for instance, made of ordinary rubber, had to be changed every few days at those depths, and it was costly in time and work. We compounded a special rubber that lasted for weeks and, because we knew the plumber's needs, it was logical to give him the advantage of this tough oil country rubber in faucet washers.

A plumber may have to charge you a dollar to put in a penny washer, in your kitchen faucet, because it takes time and travel. He doesn't make money, either, and hates the job. So a washer that lasts a long while is what he appreciates, and when we made such washers for plumbers around Los Angeles, their fame grew. Orders came from distant points, where plumbers had heard about them, and we started building up a national business on this trifling product. We called those washers "Pignose," because a pig's nose never wears out.

They have retailed for as much as ten cents each, and been worth it in the customer's judgment, because they lasted

so long. We followed up with toilet tank balls of the same tough rubber, and because we had an improvement on a small article, were able to establish our rubber merchandise over the country, with stocks and sales managers in Chicago, Philadelphia and Dallas.

When the sudden war expansion of our business made it possible to build up our rubber merchandise at a quicker pace, we not only hired more traveling salesmen, but made the war provide us with a still better faucet washer to talk about.

In their reading about war, and national defense, people have learned something about synthetic rubbers.

We had known for several years that a faucet washer made of synthetic rubbers (there are several different types) would outlast the toughest washers made of tree rubber.

Washers that last long

BUT had we put one on the market a year ago, the public would have regarded it as a substitute, not an improvement. Up to that time, this was the idea people had about synthetic rubbers. The war changed their thinking. They learned that synthetic rubbers cost more than tree rubber, and are not a substitute, but an improvement.

Our "Syn-rub" washer was put on the market last fall, and has grown in popularity among plumbers as fast as they have tried it on those dollar calls you pay for.

We have "dolled up" the common faucet washer, too, in the way it is packaged.

Now, we pack our high-grade washers in the same nifty tins used for cigarettes, with a patent lifter to open them.

Better still, an employee suggested packing 200 assorted size washers in a sheet steel tool kit, with ten different sizes in little compartments by themselves, and bibb screws to match. That kit filled with washers weighs about two and a half pounds, and the plumber can slip it in his overalls pocket and be ready for any repair job. Where merchandise is displayed, it makes an excellent self-salesman for the busy merchant, and so do our washers in cigarette tins.

We think these things symbolize our attitude toward war work.

If we can build up our normal business, in rubber merchandise, through greater selling effort, and with improved products and packages, we are safeguarding the jobs of our employees, as well as our own business, against the day when industry must demobilize.

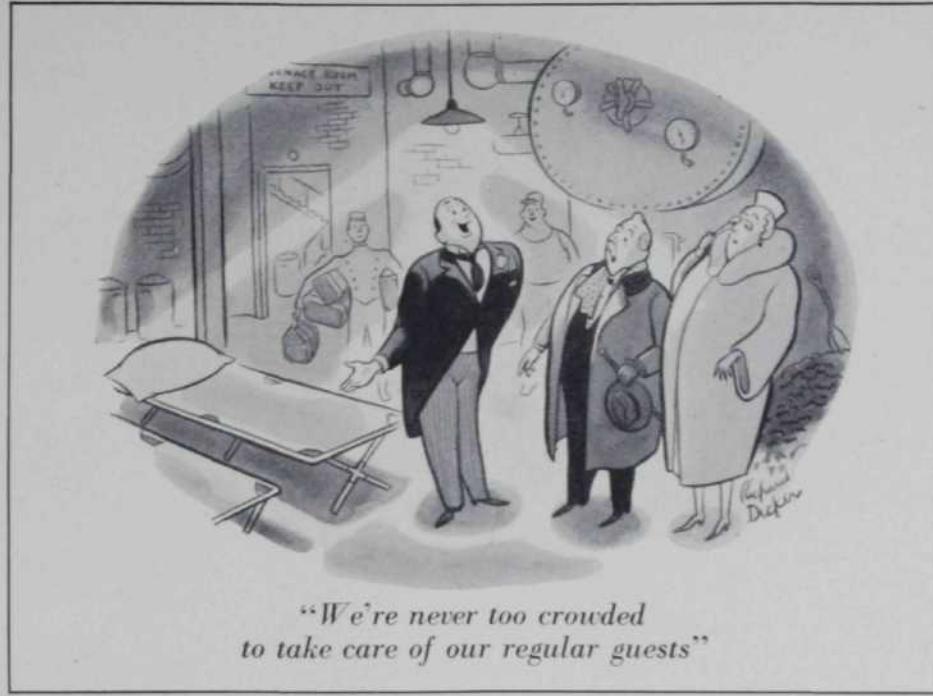
We do not know what is ahead, but as long as conditions permit us to do this, we will keep on.

It is Uncle Sam who must call the tune.

If he wants more war production from us, and says that it will be necessary to cut down "business as usual," he will let us know.

Uncle Sam is commander-in-chief.

We will be guided by his orders, and tackle 100 per cent war work if necessary—and then use all our ingenuity to do still more.



*"We're never too crowded
to take care of our regular guests"*

THERE are certain things that draw profitable customers like a magnet attracts steel chips . . . whether to a store, restaurant, theatre or hotel. One of these is an interior that glows with color and life. A sparkling wall panel of Pittsburgh Mirrors . . . cheerful PC Glass Blocks that let in the daylight . . . the brilliance of colored Plate Glass . . . things like these give your place of business

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So We're "Unfair"—to Whom?

By a Little Business Man

as told to RUEL McDANIEL

THE WORKMEN are so well satisfied that they remain at their jobs in spite of threats and violence, yet pickets carry signs proclaiming that a strike is in progress against the business

THROUGH my office window I can see a sallow-faced young man in work clothes slowly plodding up and down the sidewalk outside my garage. The sign bears in big red letters an ugly word:

"UNFAIR!"

It goes on to explain in smaller lettering that my shop is unfair to organized labor.

To see a business establishment picketed is of course not a rare thing. The peculiar thing about my particular situation is that nobody has ever told me that I was unfair to anyone.

Back in my shop all 27 of my employees are working as usual. They had no grievance in the world, they emphasized, when this picket line started in front of the shop more than 60 days ago. The fact that not a single employee walked out before or after the picket line started indicates rather clearly to me that there was nothing unsatisfactory or unfair about labor conditions in my garage.

The men not only are satisfied with conditions as they are, they are loyal enough to endanger their own lives to prove their loyalty and satisfaction with wages and conditions.

Five days after the picket line started, five of my men were halted at a traffic light in the heart of our city. Three men climbed into the car, pressed pistols against the ribs of the driver and two others and ordered the driver to take a certain street that led to a desolate spot along the bank of the river.

Here the three gunmen held my men under threat of death and demanded that they quit their jobs. All five emphatically refused. Two of them were clouted over the head with



Why should strangers abuse and threaten my men just because they don't want to organize?

gun-barrels. All were threatened with death unless they agreed to walk out.

To save themselves from further beating at the hands of the three thugs, they agreed to quit. Next morning they showed up for work as usual, and they still are working. But, hanging over them every time they step outside, is the threat of hired gunmen.

Tactics of the mob

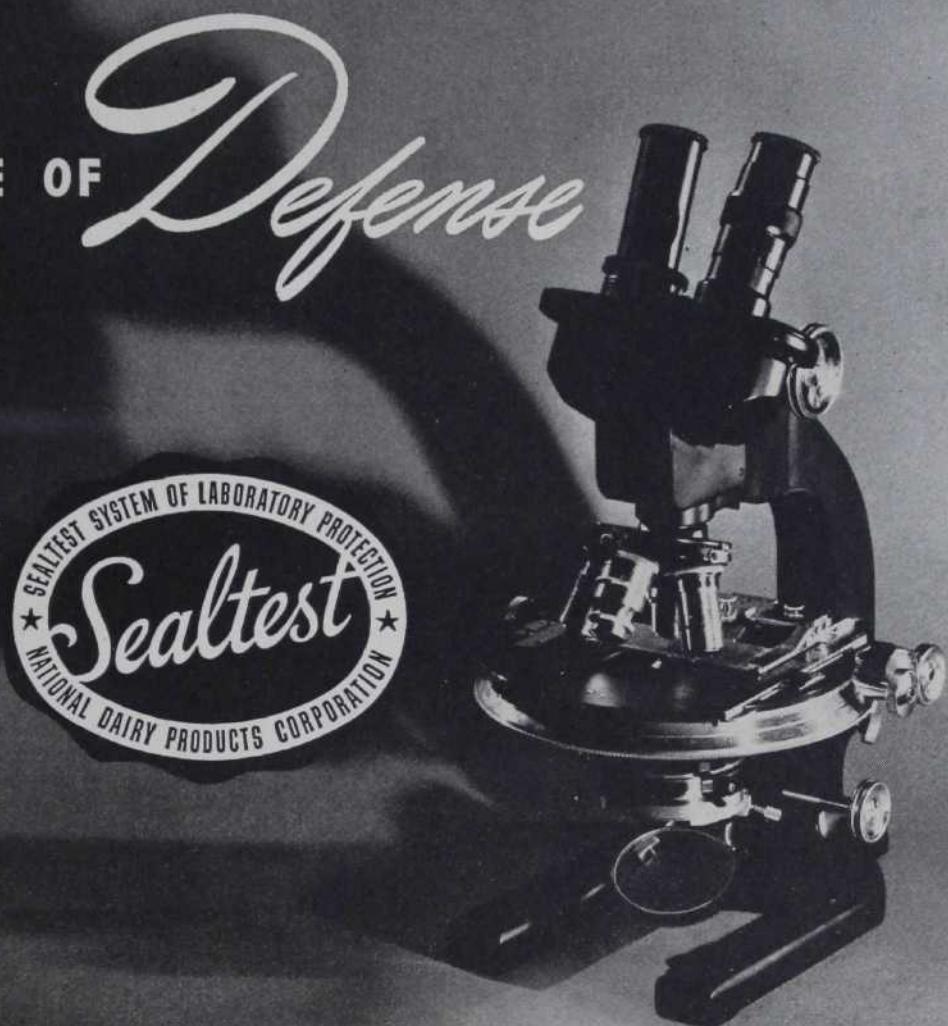
THREE weeks ago a Negro boy who is an apprentice in the shop and runs errands, drove a customer to his home in one of our light wreckers. As the boy let his passenger out and turned around through a filling station to start back to the shop, a car whizzed up in front of him and applied the brakes. Four men started tumbling out.

The boy knew they were after him.

He threw his truck in reverse but the motor was slow in taking hold. The men almost on him, he leaped out and tore across the street into a weed-patch. The truck backed into the service station and tore out a plate-glass window. The boy outdistanced his pursuers and returned to the shop late that night, after walking more than four miles and hiding out in the woods for hours. Our city is in the "Deep South" and the boy would not have dared fight back at white men, even if he had had the inclination.

I have been an automobile mechanic since I finished high school 16 years ago. I deliberately chose that trade because I liked to tinker with cars. I started at five dollars a week, and I am sure I was overpaid. I had an inquisitive mind, and I learned not only all I could about the mechanics of a garage but the business end of it. I

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by Westinghouse



- Every day elevators transport more people, in any large city, than all other modes of travel combined. Westinghouse elevators alone carry more than eight million people daily.
- While the elevator might seem to be a very simple device—just a box, in a shaft, on a cable—it is really an intricate, scientific system of automatic controls and safety devices. The equipment necessary to operate just one of our modern high speed elevators in a twenty-story building may include 31 motors, 3425 feet of steel hoisting cable, seven and one-half tons of guide rails, and a maze of 250 electrical relays, compacted into 60 square feet of control panels.
- For many years our company made the electric motors and control equipment for elevator manufacturers. By 1926 our engineers had become so interested in the many problems of the elevator industry that we began the manufacture of our own elevators.
- Since then our people have made three major contributions to comfort and safety in the modern

high speed elevator. The first is a power control system that eliminates the jolting stop on the end of a swooping "power dive". No doubt, many stomachs are grateful for this development.

- Then we developed that device which automatically levels and stops a car at a desired landing. Remember how the elevator boy used to inch you up and down trying to make a perfect landing? The Inductor Landing which our engineers worked out relieves the operator of this responsibility, simply through the installation of magnetic iron plates at each floor landing and an electric coil on the elevator cab.
- A third important development in this field by our company is the so-called "Safe-T-Ray", the photo-electric cell which prevents electric doors from closing until the threshold has been cleared of passengers.

• If you have ever ridden on the elevators we made and installed in the RCA Building, New York, you can fully appreciate the comfort, speed and safety of a modern elevator system. In these elevators you have practically no sensation of movement, yet you travel at speeds up to 1400 feet a minute between stops and starts.

• In the field of vertical transportation the electric stairway is becoming increasingly important. By conservative estimate more than 30 million people rode on the electric stairways we installed at the New York World's Fair. The Westinghouse Electric Stairways in the Perisphere were the longest ever installed in this country.

• The elevator engineer is a man we ought to take off our hats to. For he has made the busiest of all transportation systems the safest as well. Elevators today have an unparalleled safety record. In fact, it is virtually impossible for a passenger to injure himself in a modern elevator.



drifted from town to town, working until I grew tired of the job or the town, for eight years. Then I came back home and got a job in one of the largest garages here. I remained in this job for four years and then obtained a selling position with a local parts jobber.

This kept me in close contact with garagemen in this vicinity and I continued to build up my acquaintance with men who owned cars and trucks. From my last days in high school, I looked forward to the time when I eventually could own my own garage, and three years ago that opportunity came.

A modern garage that had been established here 23 years was for sale because of the death of the owner. Another mechanic, whom I had known since childhood, and I bought the place.

A good place to work

AT THE time we bought it, there were eight employees. Now there are 27. In other words, my partner and I have created lucrative employment for 19 men in three years.

We have applications for jobs practically every day, because our shop has a local reputation of paying substantially higher hourly wages than the average for our city.

Yet a sallow-faced youth parades up and down in front of our place of business with a sign that proclaims that we are unfair to labor!

The events that led up to the "strike" were brief and to the point. One morning two men who were dark-complexioned and talked broken English came into the office. They introduced themselves and stated that they were in town to organize the garage mechanics. They expressed their assurance that we would "go along" with them.

"If our men have any grievance, we've heard nothing about it," I told the two organizers frankly, "but if you wish to talk to the men, you are at liberty to do it."

They did talk to the men—without success.

"Do you want us to join the union?" the foreman asked my partner and me after the organizers had left. "If you don't, then we're staying out. There's no sense in paying a lot of dues every month, when we're already drawing more than the scale the union proposes to enforce."

That, I presumed, would be the end of the matter. But I was optimistic. Less than a week later two more men came back. "You order your men to join the union or we'll call a strike and picket your shop!" they told me in a belligerent tone.

Well, I showed them the door, in a

tone no more friendly than theirs. Next morning the picket showed up.

I have learned by talking with other garage operators that our shop has received more than the usual attention because it quickly turned out to be the stumbling block in the plan to organize the mechanics. Our town has a population of about 65,000 and ours was the largest independent shop in town. Other mechanics were pointing to us and asking the organizers if our men were coming in. If so, they would come in, because they figured somehow that, if the mechanics were organized all over town, our shop's wages would become standard.

Now, I have no kick against organized labor. I know for a fact that it has done a lot of good. Yet, I cannot see the logic or the fairness of strangers, who have no interest in either me or my men, coming into town and ordering my men and me to organize. Every man working in this shop came here voluntarily and asked for a job. The fact that not one man wanted to join the union and not one walked out when the so-called strike was called indicates that all are satisfied.

Pay according to work

WE HAVE men who are doing the same kind of work who are drawing different wages. We have a painter who draws 80 cents an hour, and he works alongside another man whose wage is 65 cents. But both are satisfied. The lower-waged man knows he's not worth as much as the other; but he knows that he will receive 80 cents as soon as he is worth it to us. The "organization" would have us pay both men exactly the same. I say that is unfair.

Organized labor is all right, and any time my men feel the need for organization, they certainly may have it—without penalty. But until they do, I think there is something definitely rotten in the Low Countries when strangers can come in, kidnap and abuse my men and clutter up my premises with "Unfair" signs, just because my employees don't want to join a union at the behest of some stranger who can scarcely speak our language.

We appealed to the local police for protection for the men. But did we get it? Not a shadow of it.

"We'll look into the matter," was the best assurance we ever had. A policeman whom I have known since boyhood explained it all to me.

"It's like this, Pete," he said. "We'd like to protect your men from them dam' thugs. But our hands are tied. This is a labor town. If we catered to you, the labor leaders would see that all our elective officers are defeated at the next election. You see how it is."

But I don't!

GOOD BUSINESS NEWS

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FINANCING. AT THIS WRITING ESTIMATE VOLUME FOR 1940
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VOLUME WAS HIGHLY PROFITABLE IS OBVIOUS FROM COMPARISON
OF NET WORTH FIGURES FOR YEAR ENDING DECEMBER 1939 AND
THE 9 MONTHS ENDING SEPTEMBER 1940. NO ADDITIONAL CAPITAL
WHATSOEVER WAS PLACED IN THIS BUSINESS. INCREASE IN NET
WORTH RESULT OF PROFITABLE OPERATIONS. COMMERCIAL CREDIT
OPEN ACCOUNT FINANCING HAS BEEN MADE AN INTEGRAL PART OF
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MARKETS (% of the U. S. total)	
Population	90%
Personal Income Tax Returns	86%
Native White Families	88%
Total Wealth	88%
Passenger Cars	84%
Commercial Cars	83%
Retail Sales	86%
Bank Assets	90%
Bank Savings Deposits	88%

MATERIALS (% of the U. S. total)	
Value of Mfd. Products	91%
Mineral Products	77%
Dairy Products	88%
Lumber	51%
Coal	94%
Manufactured Gas	95%
Steel	98%
Electrical Horsepower	82%
Petroleum Industry	83%
Wheat Production	81%
Corn Production	99%
Cotton Production	93%



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Can the Nation Afford Cheap Money?

(Continued from page 26)
joined in policies which have helped to force down the general level of interest rates.

As the relative advantages and disadvantages of cheap money are weighed, it becomes apparent that the latter assume major importance, particularly because of the extremes to which the policy has been carried in recent years.

The theory that cheap money will stimulate business activity has proved to have its weaknesses. It has been demonstrated that something more than ample credit at low interest rates is necessary to induce business men to borrow. If other conditions are favorable, such as governmental policies respecting taxation, labor, and regulation of and encroachment upon business, its managers will not hesitate to pay higher rates. The business recession of 1937 occurred despite the availability of cheap money. Recently excess reserves of member banks of the Federal Reserve system have ranged between \$6,000,000,000 and \$7,000,000,000. Scarcely any surplus existed during the peak of the business boom in 1928 and 1929.

Farmers and home owners whose debts and interest charges have been scaled down by actions of various governmental corporations have benefited in the first instance from the policy of cheap money. Whether all of them and the public in general have been aided in the long run is more open to question, when account is taken of foreclosures which ultimately could not be avoided, resultant losses to the taxpayers, and the shrinkage of incomes from savings accounts, insurance policies and investments caused by the maintenance of the cheap money policy.

Large companies profited

WHILE many corporations have been able to refinance their obligations at lower rates of interest, the larger companies probably have profited more than the smaller ones, the latter finding investors less ready to risk their capital without a more adequate return. Those benefiting the most, such as large corporations in refunding operations, could easily pay higher rates.

The constant redistribution of wealth and income which has been promoted by cheap money may have improved the status of some debtors at the expense of some creditors, but whether this has been of general benefit is doubtful. Most debtors are also creditors and there can be no definite assurance that the status of the least fortunate element of the population has been improved.

Without cheap money the Treasury would have had a much more difficult time in financing its deficits which for a decade have been a regular feature of fiscal policy. Through deficit financing it has been possible for the Government to provide relief for the unemployed, to embark upon many extensive projects for social security and to meet the demands

of the present defense program. However, there is another less favorable side to this picture as in the case of other immediate advantages from cheap money. Fiscal troubles are piling up for the future.

In the enumeration of disadvantages from the easy money policy the shrinkage of incomes from savings, insurance, trust and endowment funds deserves foremost mention. This curtailment of income hits hard at the average citizen.

Less income from savings

IT IS estimated that the total of savings deposits, insurance assets, trust and endowment funds is \$80,000,000,000 or more. The income from a large part of these funds has been cut at least one-third and, as to a considerable part, by 50 per cent or more in the past decade. What this means to persons or institutions dependent upon savings or endowments may be realized. Thousands of persons had barely enough to live on when they were able to realize an average of four or five per cent or more on their savings and investments. A reduction of interest payments on savings accounts to two per cent, which has generally taken place and a corresponding decline in the return from other investments obviously has caused serious distress among those dependent upon income from these sources.

Savings deposits of about 45,000,000 persons in various classes of banks total about \$25,000,000,000, of which about \$10,000,000,000 are in mutual savings banks. The average interest rate to depositors in the mutual savings banks a decade ago was almost 4½ per cent while other banks generally paid as much as three per cent. The mutual savings banks as well as other classes now for the most part are paying not more than two per cent. Demand deposits no longer yield any interest at all. The various reductions and prohibitions in interest rates have been accomplished in part by statute and regulations which were intended to facilitate the granting of loans at lower rates and in part by necessities growing out of the lower yield on all classes of investments due to the existence of the cheap money policy.

The effect of the cheap money on the 65,000,000 Americans who hold insurance policies has been made evident in figures showing that, in the past decade, investment earnings of the companies have dropped from an average of 5.03 to 3.54 per cent. The net investment income of all United States legal reserve life insurance companies is now \$2,000,000,000 less annually than it would have been at the 1930 level of return. The assets of these companies total approximately \$30,000,000,000. The lower investment income is reflected in higher premiums and lower dividends to policy holders.

The shrinkage of income from endowment funds has created serious difficulties for educational institutions. It has

been necessary to raise tuition fees, to reduce salaries of teachers, to defer promotions, to operate with smaller teaching staffs, to cut expenditures for new books and research facilities, and otherwise to impair the effectiveness of the work.

The case of the University of Chicago, established with an endowment from the Rockefeller fortune, is illustrative of present conditions. Its president reported in the past year that 40 per cent of the endowment income had been wiped out by the decline in interest rates, that it is spending \$1,200,000 annually in excess of its income, that resources available for deficit financing are approaching exhaustion, that the budget now provides for fewer full professors than in 1920, that salaries have been reduced, and that more than 350 courses have been dropped.

The recent annual report of the Carnegie Corporation, which has contributed generously to educational institutions, showed substantial expenditures during the past year in excess of income and noted a 25 per cent reduction in the amount available for the current year. Its president predicted that the weaker educational institutions would not long survive the present curtailment of income.

The plight of the universities and colleges not only affects many thousands of educators who at the best have been poorly paid but weakens the educational system through which the standard of American culture must be maintained.

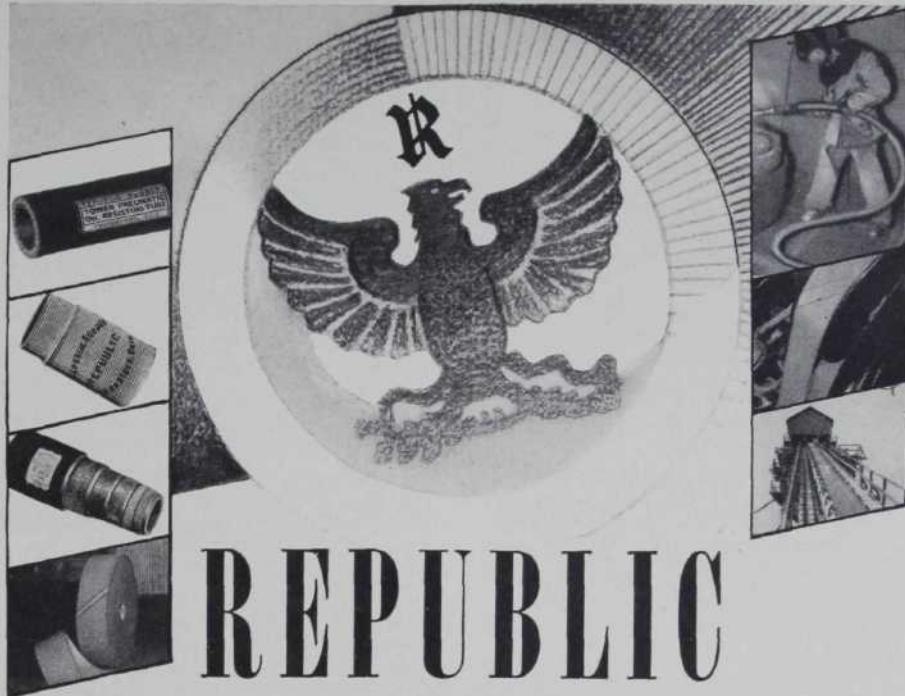
Thrift is discouraged

THE net result of the shrinkage of income from savings and investments is to discourage thrift and to cause individuals and institutions alike to depend for their future upon the beneficence of the Government. Increasingly the philosophy that the Government owes its citizens a living is taking root. The taxpayers increasingly must carry the burden of maintenance of educational institutions. Educational subsidies of the federal Government will be expanded and colleges and universities which can exist without dependence upon the States or other public bodies will become fewer and fewer. It will mean a greater domination of teaching policies by those in control of the Government.

In the field of industry, the effect of cheap money has been to undermine steadily the American system of free enterprise. The decline in the rate of return on investments has occurred simultaneously with the adoption of various policies favorable to public ownership and operation or more stringent regulation of many private enterprises. With investments in private enterprise made less attractive by a lower return, heavier taxation, burdensome labor policies and severe regulation in a period of world trend toward the assumption of greater responsibilities by governments, cheap money tends to weight the scales more heavily toward the latter movement than might have been true a generation ago.

Cheap money and accompanying oppressive governmental policies are responsible for two irreconcilable condi-

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tions, first, an artificially large supply of funds, and, second, an artificial scarcity of demand. The gap between the two gives encouragement to greater governmental participation in business and curtailment of private enterprise.

High market prices of government and corporate bonds due to cheap money have created a boom condition in bonds which is potentially more dangerous to the whole business economy than the stock boom of 1929.

As a result of easy money policies of recent years rates for short-term money in the open market at the present time are almost zero. Rates on government securities and high grade corporate bonds are lower than at any other time in history.

Interest rates near zero

FEDERAL Reserve statistics show that the rate in New York City on prime commercial paper, extending for from four to six months, ranged from one-half to five-eighths of one per cent at the end of 1940 as compared with rates of from $1\frac{1}{4}$ to $1\frac{1}{2}$ per cent early in 1934. The rate on United States bills stood at an almost infinitesimal fraction of one per cent. The average yield on Treasury bonds due or callable after 12 years was 1.88 per cent as compared with an average of 2.68 per cent in 1937.

The average yield of all corporate bonds was 3.36 per cent at the end of 1940 as compared with averages of 3.94 per cent in 1937, 4.96 per cent in 1934, 5.09 per cent in 1930, 5.47 per cent in 1925, 6.04 per cent in 1923 and 7.08 per cent in 1920.

Investors have found it increasingly difficult to place their surplus funds satisfactorily. An overwhelming proportion of the new capital issues of recent years has consisted of the securities of various governmental bodies. The new corporate stocks and bonds, exclusive of refunding issues, which were offered in 1939, were only about one-twelfth of the total of 1930. The practice of private placement of large corporate issues with insurance companies and other limited groups of investors, which has developed as a result of restrictions and costs imposed on public offerings under the Securities Act, has served to narrow the opportunities for ordinary investors. It is estimated that 44 per cent of new corporate financing in 1939 was handled through private placements. The securities issued in this manner, like those offered publicly, have carried very low interest rates.

The public has developed a false sense of security by reason of the ease with which Treasury deficits have been financed.

The easy money condition has made it theoretically possible for the banks to absorb almost any amount of government securities at very low rates of interest. Annual expenditures of the federal Government have increased from about \$4,000,000,000 a decade ago to more than \$13,000,000,000 in the current fiscal year. The new budget calls for a total of \$17,500,000,000 in the fiscal year 1942. The aggregate deficits of the ten years of unbalanced budgets ending in June 1940 exceeded \$30,000,000,000. The

public debt has mounted from a little more than \$16,000,000,000 in 1930 to more than \$45,000,000,000 early in 1941. The debt will go to \$60,000,000,000 or \$65,000,000,000 in the next two or three years. The general public has appeared indifferent to future consequences, inasmuch as it has been possible through very low interest rates to keep the present annual cost relatively low.

There may be reason for concern from the standpoint of the Treasury if the interest level rises substantially or if there comes a day of reckoning because of some of the unsound fiscal practices of recent years. The annual interest cost has not quite doubled in the past decade despite an increase of almost three times in the debt total. In the next fiscal year, the annual interest charge will approach \$1,250,000,000. The Treasury realizes that it must hold down the level of interest rates if the cost of the debt is to be held within bounds.

Cheap money forms a menace to the banking system but any reversal of the policy must be by gradual and well considered steps to avoid potential dangers. A sudden increase in the interest level would cause losses on government securities and high grade corporate bonds. About 41 per cent of all direct obligations of the United States Government and 65 per cent of guaranteed obligations are in the hands of banks insured by the Federal Deposit Insurance Corporation. Nearly one-third of the total assets of all the banks in the United States consists of securities of the United States Treasury, government agencies and state and local governments. The proportion of earning assets is much larger. A too precipitate return of interest rates to what formerly was regarded as a normal level, with an accompanying severe slump in market values of government and corporate bonds, might bankrupt many banks as well as render the Federal Deposit Insurance Corporation insolvent. A gradual and moderate rise would be intended to eliminate some of the evils of cheap money without great loss.

Bank earnings are low

THE low interest level has meant a reduction in profits of banks from loans and investments. Rates charged to commercial customers by banks in the larger cities have declined considerably although many bank loans, especially in smaller cities, are still made at the old levels. The yield on investments is very low, except as the banks have been encouraged to risk funds in more speculative, longer term or less liquid enterprises, which may involve undesirable hazards. The Federal Advisory Council has pointed out that easy money "is tending to weaken the capital position of banks and is encouraging an essentially unhealthy position of the bond portfolios of the banking system through its inducement toward lengthened maturities at progressively lower rates."

The average rate charged customers by banks in 19 principal cities at the middle of 1940 was about 2.60 per cent as compared with an average of 3.45 per cent in 1934. Government credit agen-

cies, through their competition, have helped to force rates on bank loans downward. The Reconstruction Finance Corporation, for example, announced that an interest rate of 1½ per cent would be available on certain loans to defense industries.

The commercial banks and investment houses find themselves facing an abnormal degree of risk in making loans. Under conditions wherein six per cent was the common rate of interest a banker might figure that he could afford to be fairly liberal in his loan policy on the theory that not more than one out of say ten loans would prove unsatisfactory. If the rate were only three per cent the banker would be forced to maintain a more severe policy, figuring that perhaps one out of five loans would result in loss. This tightening of the selective process by the banker tends to offset any advantage of low rates to the general business public.

Possibilities of inflation

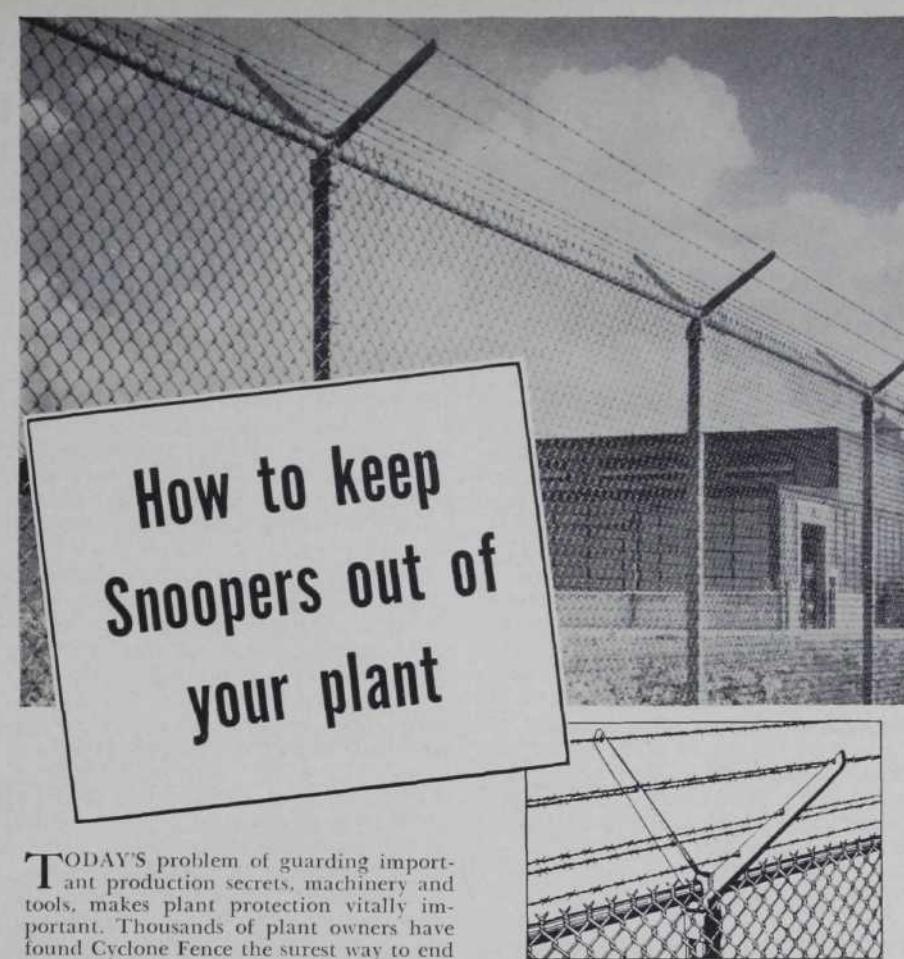
THE existence of large surplus banking reserves, the foundation of the condition of easy money, has created inflationary possibilities greater than ever existed at any previous period. Recent excess reserves held by member banks of the Federal Reserve system totaling upwards of \$7,000,000,000 represent potential credit of around \$60,000,000,000. The amount might be pyramided to vast additional sums through the use of funds outside the Reserve system and new reserves which might be created through borrowings from the Reserve banks. The powers of the Board of Governors of the Federal Reserve system, either through changes in reserve requirements or through the sale of government securities held by the Reserve banks, are held to be entirely inadequate to control an inflationary movement growing out of possible war developments.

The recommendations of the Federal Reserve authorities contemplate the creation of a condition whereby the present extremely low interest level might be moderated.

These recommendations include greater power over banking reserves, extension of reserve requirements to non-member insured banks, and repeal of dollar-devaluation, greenback-issuance and silver-monetization powers.

Through a reduction in excess reserves of banks and the elimination of potential sources of increases inflationary dangers growing out of the defense program undoubtedly would be minimized. The possibility of a gradual modification of the existing condition of extreme monetary ease would be enhanced. The accomplishment of such an objective, however, would require a coordination of the policies of the monetary and credit agencies of the Government.

Even without legislation, these agencies might move in that direction. The purposes of the Federal Reserve authorities, as indicated in the special report to Congress of December 31, 1940, can be achieved fully only through the adoption of common policies by the Treasury, the chief beneficiary of cheap money, and other agencies of the Government.



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Management Pulls Defense Load

(Continued from page 17)

the arms and munitions they might desire from our factories."

"I don't see anything dictatorial about that."

"But it isn't likely that we would send arms to a country that might turn up in the other fellow's camp."

Judge Patterson grinned. He said, "No."

As Under-Secretary of War, Patterson is in charge of the Army's Procurement Division. This is the asking branch of the Army. It asks for the innumerable things an army must have if it is to go to war. At least more than 7,000 items. As an under-secretary he ranks James Forrestal, Assistant Secretary of the Navy, on the Army and Navy Munitions Board, which was set up by act of Congress to discover all the facts about these innumerable things. Col. Charles H. Hines is the Secretary of the Board, and other officers of the Army and Navy serve on it. The Board is the proving ground on which the Industrial Mobilization Plan operates.

Cooperation by industry

FOLLOWING Bernard M. Baruch's successful one-man bossing of the War Industries Board in 1917-18, the Board was set up to effect a liaison between the armed services and American industry. At one end is the Army Industrial College, which works out the technical problems, and at the other end is industry. Twenty thousand firms and companies were in close cooperation with the Army and Navy during the immediately preceding period in which Louis Johnson was Assistant Secretary of War. When the word came to "go" both sides fairly well understood the problem.

The needs of the two armed services are rarely identical in item, but they trace back to the same raw materials and the same problems. Forrestal wants more shipyard space and more skilled workmen just at the moment. Patterson wants more Garand rifles and more skilled workmen. In 1917 and 1918 this conflict was made spectacular by the frantic bidding of the Army and Navy against each other. Sometimes each service bid against itself. In this way, the Army was able to provide 4,000,000 mud-walking doughboys with 2,000,000 pairs of spurs, and the Navy probably beat the Army out of enough smokeless powder to blow up the Sudan.

Patterson and Forrestal cover the industrial field in moderate but not excessive harmony. That is to say they get together as nearly as may be on what each must have and when, and what either is willing to get along without until such and such a date. These agreements made in the Army and Navy Munitions Board have immensely eased the path of American industry. When some measure of coordination has been established, their requests go to the Of-

fice of Production Management, through Secretaries of the Army and Navy Stimson and Knox. William Knudsen, recently of General Motors, is chairman of the O.P.M., and Sidney Hillman, labor leader extraordinary, is his co-but-not-quite-equal mate.

The O.P.M. is concerned solely with the technique of production. Knudsen and Hillman work with contracts and priorities and wages and prices. They are aided by a fleet of dollar-a-year men, and between them about all that need be known is known about almost every industry.

Now and then there is a conflict on facts outside of the O.P.M., but there rarely is a conflict on the inside. Attorney General Jackson's clarion call about the magnesite supply might be cited:

"Magnesite is controlled by a company which is a part of a German cartel," said Mr. Jackson loudly. "That is ——"

The reader may supply the blanks at will. The same day that Mr. Jackson said it, the company which supplies magnesite came out with a most convincing statement that what Mr. Jackson said was simply not so. There was a peacetime arrangement between German and American firms, perfectly common-place in character, so far as the facts presented show. Business is conducted in that way during peace. Because of the threat of war magnesium products have already been expanded 20 times. That kind of miss would hardly have happened inside the O.P.M. Other misses have happened and may happen in the future. Mr. Knudsen has, for example, had difficulty in persuading Mr. Hillman that the one important thing just now is to get the stuff out on time, and not to decide whether the A.F. of L. or the C.I.O. should have the closed shop and check-off privilege in a named factory. But the industrialists who are helping Knudsen brought teamwork into the industrial program.

One of the things the public does not hear about is the manner in which government has commandeered industry to handle its war orders. The word "commandeer" is not quite the right one, for no seizures have been necessary. But it is a satisfactory word because it makes the fact clear. Government wanted many things, wanted them right away, and found that they were not to be found in peacetime production. Therefore the great corporations were called on to provide the managers and the plant. A soap company is doing things never before heard of in a soap factory, a rubber company is loading bags, a watch making company has turned about and is making optical instruments. Time after time the industrial managers have been informed that, what with British and Chinese and Greek needs—and also, of course, the needs of the American forces—the original plans must be enlarged. Industry is enlarging and not complain-

ing about it. Red tape and confusion exist, always have existed, and probably always will exist in government operations, but where the industrialists are not being interfered with they are going places.

Knudsen has not been over-optimistic in his recent statements, but his complaint has never been that industry is not keeping up with our needs. He expects to have 33,000 planes before July, 1942, of which 19,000 are allotted to the United States. Ten light tanks a day will be rolling off the assembly line of one factory alone, and 2,400 airplane engines will be produced each month. There was a delay in getting under way, partly because no appropriations had been made, but that has been more than cured. Furnace capacity will "get us by" for armor plate. The Bureau of Ordnance and the Navy are satisfied with plates for cargo ships. There has been no need for enforced priorities as yet.

"If we had more time there would be no bottleneck. We are working against time."

The demand is high

NO MATTER how much industry turns out there will be a cry for more. It is not possible to keep up with a program that spreads and magnifies more rapidly than factories can be built and tools found. If every idle man were at work, and every workshop busy seven days a week and 24 hours a day industry would still be on the heels of demand. But American industry is doing better than any other country's industry ever dreamed of doing.

There was a long and distressing period during which Mr. Roosevelt seemed unable to make up his mind just what to do and, during that time, every sniper in Washington shot at industry for not doing the things industry had not been asked to do. There was no plan, no head, no direction, and no apparent objective. How the Army and Navy and industry managed to get started on what all three knew had to be done ranks as a major miracle.

To be seriatim about it:

The Army had been going downhill for years. Not the Army's fault. Distinctly the fault of Congress. Appropriations were cut to the bone and then the bone was scraped. For years no one outside of Germany had believed there would be another war in Europe. Even if there should be another war in Europe, the average American thought we had learned a lesson in 1918 and the years that followed. Washington (G.) had been right all along.

The average American thought it didn't make much difference who won, if there should be a war. The other fellow would win the next bout, anyhow. Europe's thousand years of war seemed to most of us like a palooka's trip around the tanktown circuit. Dive after dive. We

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STATEMENT • DECEMBER 31, 1940

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Other Admitted Assets	223,654.08
	<hr/>
	\$123,726,915.83

Liabilities

Capital Stock	\$15,000,000.00
Reserve for Unearned Premiums	55,020,615.00
Reserve for Losses	8,192,729.00
Reserve for Taxes	2,350,000.00
Reserve for Miscellaneous Accounts	670,974.12
Funds and Securities Held under Reinsurance Treaties	178,218.08
NET SURPLUS	42,314,379.63
	<hr/>
	\$123,726,915.83

NOTE: In accordance with Insurance Department requirements—Bonds amortizable are carried at amortized values. Insurance stocks of affiliated companies are carried on basis of pro-rata share of Capital and Surplus. All other securities at Market valuations. Securities carried at \$3,078,370.00 and cash \$50,000.00 in the above Statement are deposited as required by various regulatory authorities.

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wound up in 1939 with an army of about 75,000 real fighting soldiers. The others in the Army were clerks, hostlers, mechanics busy with the hang-over trucks from 1918 and generals. The formations had been cut to such skeletons that division maneuvering was out of the question. Then the pot began to steam in Europe. Governor La Follette of Wisconsin came home to report to President Roosevelt that:

"In a few weeks France will go to smash."

La Follette reported, not bitterly:

"The President laughed at me."

But France did go to smash. Congress twice raised its financial sights and the Army was given more money. Each time the Army's program was expanded. Each expansion meant more work for American industry. The Army had been getting along with the French 75 field pieces left over from World War One, not because it liked them, particularly, but because it could not get money for better guns. Now it was given money for modernizing them. They were still in use in France, for precisely the same reason they were still carried on the inventory here, and so the Army began to stock motors and long trails on the old 75's and say with trembling lips that they were really very good guns—then the Army would go out and kick a dog.

There is no space here to narrate the Army's trials. But the Germans were outshooting the French 75's with their new 105's, and so the Army began to arrange to build them. Industry is building them, fast enough and plenty good.

Designing new equipment

WE HAD no tanks—bar ten or 15 old models; the betting was seven to five that not one of them could get out of a given field under its own power—and the Army began to plan for tanks. The Army had no anti-aircraft guns worth mentioning, and no trucks or passenger cars that any one wished to recognize in the street, and no heavy field-pieces and only a few planes and these planes lacked leak-proof gas-tanks and turreted cockpits. They had one-gun power as against the eight-gun fire power of the English. Their delicate little underworks cracked up if they landed on ploughed ground, but in war a plane must not only land where it must but it must be fit to get out again. All these things are being brought up to date. Each change made by the specialists to match the developments in Europe meant more trouble for industry.

Why talk about all this?

Because these things are essential parts in the problem industry had to face. This country stopped making artillery as soon as World War One was ended. The powder makers became "Merchants of Death" and violent yappers wrote books attacking them. The Navy wanted a little money to pay for elevating its guns so they could be at least as good as the guns of the British Navy, but the British Navy was so enamored with its job of protecting 135,000,000 Americans that it handicapped our Navy by refusing to agree to this improvement under some one of the

naval treaties that had been slipped in our national pocket.

The industries of other countries had at least been enabled to keep abreast of the needs of their national defense through the cooperation of their governments. Call the roll. Britain, France, Czechoslovakia, Roumania, Norway, Sweden, even little Finland, gave their industries a look at what might be.

We did not. We started from absolute scratch. But the Army and Navy did have that Industrial Mobilization Plan on tap and began to work it as soon as the money was in sight. Here is an example of how industrial cooperation worked, as told by Chairman Vinson of the House Committee on Naval Affairs. Congress granted an appropriation for the construction of 19 combatant vessels and 5 auxiliary vessels:

Within 24 hours contracts were signed for the building of the 19 combatant vessels and four of the auxiliaries.

Planning in advance

THE Navy Department had sent out the specifications months earlier. The Navy knew what it wanted. The contractors had their bids ready to spring the moment the money was in sight. The Navy now has under construction 369 combatant vessels, 85 auxiliary vessels, 96 patrol craft, and 166 district craft, and 90 vessels acquired from commercial sources are being converted for naval use. The building time has been reduced two to nine months, dependent on the type of vessel. Shipyards generally are working three shifts and about one-half of the shipbuilding is being done in private yards, which were forced to adapt themselves to the task of building warships instead of peaceful cargo carriers.

"It is the largest program of war shipbuilding that has ever been undertaken by any country at any time," said Mr. Vinson.

At the same time, the laboratory of war in Europe has forced structural changes in the Navy's older ships. Mr. Vinson catalogued them:

Additional anti-aircraft guns, replacement of present small caliber guns by guns of larger caliber, armoring topside battle stations, increasing magazine capacity, improving facilities and adding to protection, installing torpedo-defense "blisters" and more modern fire control equipment.

Perhaps these changes should have been anticipated, but the fact is that improvements in the technique of war are only discovered as the war goes on. In any case, these changes are an added burden on industry. At the moment of writing, the experts are not agreed on the relative value of air vs. sea power, and the time-old battle of battleships vs. cruisers rages wherever an admiralty can be gathered together.

The older battleships are being given top-side protection against bombs—and that is another job for industry to handle—but one school maintains that stronger deck armor provides the only safety, and a third bloc asks for better gun power and plane power as the only defense. Whenever a decision is reached on these or any other problems, industry

will be expected to provide the tools and finish the work overnight. Otherwise, as Isador Lubin says:

Industry simply does not understand.

A somewhat plaintive overtone goes with that "simply." Industry seems to understand perfectly, even if it is puzzled now and then. If that seems to be a paradoxical statement, please remember the poker player in Alfred Henry Lewis's "Wolfville," who was loved by every one, but who died in violence because he had a passion for making new rules as he played along. The Navy, through Mr. Vinson, states that the new ships will be slipped into the water months before any one could expect them to be. Yet, just when all the ship-builders are straining every nerve and scraping every village to find men who know how to drive a rivet, a new program of shipbuilding is tossed at them. Two hundred emergency cargo carriers are to be built, presumably for British use. This means that about a dozen new shipyards are being constructed or tacked on to shipyards now in operation. At the same time American yards are engaged on a 60 ship program for the British, and a 50 ship-a-year scheme for the Maritime Commission.

"We can handle any job they give us," said a Pacific Coast shipbuilder. "But it would help if we could find out what the program might be."

Total demand is unknown

NO ONE can tell because no one knows. No one can say that American industry will be equal to the final demand made upon it until some one finds out what that final demand will be. The American Iron and Steel Institute says that, in the last quarter of 1940, the steel industry had an unused ability to make steel to a total of 3,000,000 tons a year although output in 1940 broke all records. At the very worst, steel men say, the national needs for steel can be supplied, although civilian wants might for a short time go unsatisfied. That is fine! Germany and England called in aluminum pots and pans, and so the emotional American far-sighted a dreadful aluminum famine here. But the Aluminum Company of America says there is no danger. The copper industry observes that it can provide for our national needs. American industry is erecting tin smelters as a safeguard against a shortage.

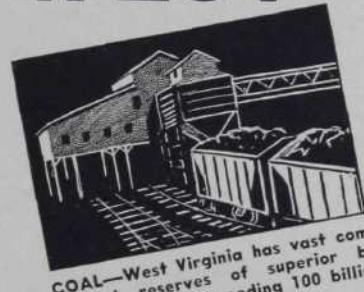
Since June, 1940, when the defense program was hatched and long before it had rubbed off its pinfeathers, American industry had put men at work in the six industries classified by the Department of Labor as the "war material industries." Some 101,600 men are on aircraft, in addition to the 24,000 previously engaged. Shipbuilding added 49,000 men and is clamoring for more; machine-tool making gained 28,000 men (a great difficulty here is finding skilled toolmakers); 30,500 more were put at engine making; 8,200 more are making aluminum, and 8,700 more, explosives.

Paul V. McNutt reports that 295,000 workers were added to the pay rolls in a single month on the related war indus-



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tries such as building cantonments, airports and other military projects. No one knows how many have been put to work on housing projects. Industry, and not government, has been making a census of the smaller plants which can be notched into the program, and subcontracting is really getting under way.

Industry, as Judge Patterson observed, is doing its part.

"Where there have been complaints they have not been the fault of industry."

The program for American needs has been sharply outlined, thanks to the studies which have been made by the Army and Navy during the past 20 years. American industry has kept up with it and will continue to keep up with it. John D. Biggers, director of production for the O.P.M., states that the output of American planes in December exceeded expectations by almost 15 per cent and that light tank production was four months ahead of schedule. Col. John H. Jouett, president of the Aeronautical Chamber of Commerce, said that aircraft production of the present scheduled 37,000 military planes of all types is up to date.

T. P. Wright, vice president of engineering for the Curtiss-Wright Company, states that, by the spring of 1942, the British air fleet should be equal to that of the Axis, thanks to American production, although the one country is under constant bombing attack and the other was compelled to undertake the production of new types of planes for which neither designs nor tools nor factory space was ready when the call was made. He points out, by the way, that our manufacturers are compelled to build about 50 different types of military planes for the various uses of the Army and Navy.

It is probably impossible to reduce the models to fewer than 40, or possibly 35, without impairing military efficiency.

Each order of combat planes must be large enough to permit efficient production, but not so large as to force too obsolete equipment on service squadrons toward the end of the production run.

American industry will not be in full production until the autumn of 1941. So far as the strictly American program is concerned, that is as it should be. If it had been able to jump into full production in June, 1940, the Army and Navy would now be buried under a mass of matériel which might prove only to have been needed in part. The excess would have cost billions to make and millions to handle, guard and store. The new recruits would not have been readied for service because of the shortage of good non-com material in the old army and only a sergeant can make a soldier out of a rookie. The new ships and the new seamen would not have been on hand. An army's theory of production is to have enough matériel on hand if a war begins, and to have the production facilities ready to produce as fast as the need arises with a sufficiency in reserve.

But, if the United States really goes into the business of being an "arsenal for the democracies of the world," then there is no program. There is only an inestimable and probably unfillable void. That is the cloud that hangs over Amer-

ican industry today. The extent of British orders could at one time have been roughly estimated by what was known of British ability to pay. Not even Great Britain knows now what its wants may be if all the resources of American industry are to be placed at its disposition on the lend-lease plan.

There is a beginning but no discernible end to such a scheme, except as the total defeat of the Axis and the complete triumph of the world's democracies might be considered to be the end. Guns, planes, ships, submarines, tanks, rifles, shoes, food—

We shall now return to Robert P. Patterson, Under-Secretary of War, and the man who will work out the schedules of the Army's needs through the Munitions Board. Fifty years old, square-shouldered, an upright, slender body, sharp and reasonably friendly brown eyes, fast-moving, concise, with the habit of command. Twice decorated for extraordinary gallantry in action in World War One, and with the Purple Heart for wounds received in action. He gave up a life position at \$12,000 a year on the U. S. Circuit Court of Appeals for the Second District to take a \$10,000 post, terminable at the President's pleasure, as Under-Secretary of War. A marvel at tearing the heart out of a legal problem.

He said it himself. He looks at the work ahead and he feels "growing pains."

Business and Defense, Revolutionary Style

By SIMPSON M. RITTER

IN AUGUST, 1775, Martin Tibald, a New York feed merchant of French descent, was, along with several others, commissioned by General George Washington to find suitable mounts for the American cavalry. Washington expressed a wish for 700 horses before the next summer. Neither the general nor Tibald had any money to pay for these mounts. Washington did have about 100 extra wagons and more than 30,000 logs of spruce and pine that had been ordered for forts and stockades to be built along the Hudson River. These plans had, however, been changed.

Tibald loaded up the wagons with as much wood as they would carry, about 5,000 logs and, with 200 draught-horses borrowed from various units of the army, started his strange caravan westward from Concord. Trading as he went, he picked up load after load of potatoes and other vegetables for his logs. The vegetables Tibald retraded for cattle and the wagons for homespun cloth.

In upper New York State the cloth was eagerly taken up and Tibald increased his herd of cows from 217 to 380. In the neighborhood of Buffalo, British raiders reduced the herd

to 305 but, with the rest, the adventurous business man penetrated to Vermont and at Bellows Falls, Rutland and Bethel he traded off the 305 cows for 141 fine steeds. About November of 1775 Tibald and his horses caught up with General Washington in Connecticut.

Both the general and the little merchant had as little cash then as they had had in August. And Washington's need for mounts had risen to 1,000. By rights the business man was entitled to a fourth of the horses as his commission but he waved it aside.

"I can wait, General," he is reported to have told Washington.

Trading horses for the army

ANOTHER caravan had to be organized but this time Washington could spare no more than 18 wagons and there wasn't an extra dray horse in the entire army.

"Give me my commission," said the business man.

Tibald bartered his own 35 superior horses to dozens of neighboring farmers for wagons and drays and a few days later left for Concord where the lumber was kept. Tibald carted off 300 logs leaving a balance of 22,000. From Concord southwestward to Ohio he traded logs for wagons and drays for oxen. On February 17, 1776 he reached the shores of Lake Erie with 85 wagons drawn by some 200 oxen. Also, 15 of the wagons were loaded to capacity with fruits and vegetables. Moving eastward, this time toward Kingston, N. Y., Tibald exchanged his fresh fruits and vegetables for more oxen and more carts and arrived March 21 at Worcester, Mass.

From Worcester the trader turned north heading for the lumber pile at Concord. His progress was slow because he was trading much. Tibald reached Concord April 16 with a caravan of 120 wagons each drawn by two or more oxen. Within a matter of hours the wagons were loaded with more than 7,000 logs and the trader had started east. Here a hundred logs, there a hundred logs. In July he was back at Concord with 150 wagons, sufficient oxen and 40 fine horses besides for his general.

Late in July, Tibald started northward loaded up this time with almost 10,000 logs and probably would have in time succeeded in disposing of all the logs and wagons for horses but at Lewiston, N. Y., he and his guard of 50 soldiers and the 150 drivers were attacked while camping for the night by a group of 40 odd Tories—the Fifth Columnists of that day. Tibald, more than half the soldiers and a good third of the drivers died in their sleep or before they could defend themselves. The rest scattered, a few reaching Washington at New York.

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What's What in Machine Tool Industry

(Continued from page 51)
metal by bringing it into contact with a rotating abrasive wheel.

Of course there are many combinations and special developments of these five methods, but they all consist of methods of removing metal.

In size, machine tools range all the way from some no bigger than a kitchen sink to some the size of a two-story house. They are complicated and intricate mechanisms, which have to be carefully built to attain the cutting speeds required, and also maintain accuracy to an almost unbelievable degree.

In fact, it is the accuracy of machine tools in the removing of metal which proved to a large extent the foundation of our whole modern system of mass production.

Parts were fitted individually

IN THE old days, the parts for a product—let us say, for instance, a rifle—were made for that particular rifle. Each part was whittled down by hand filing or scraping so it would fit. Each rifle was put together individually. The parts of each rifle fitted together, of course, to form that one rifle—but they would not fit on any other rifle. There was too much variation in them. They were too inaccurate.

With the accuracy made possible by the development of machine tools, interchangeable parts became possible for the first time. This enabled manufacturers to make large numbers of parts and then assemble them at random into final products. They could do this because they knew that all of the parts in any one stock pile were exactly alike. It is this principle which has made possible modern mass production and the great assembly lines in modern factories.

But, although most of the things we use in modern life are made possible by machine tools, the machine tool industry is not large. The approximately 250 companies in the field turned out approximately \$450,000,000 worth of machine tools in 1940, more than twice the 1939 production. They did this with some 83,000 men employed. If production is to continue to increase, more skilled men will be needed and many of the companies have devised training plans to meet this problem.

Just any mechanic will not do as a machine tool builder. A machine which is expected to work to tolerances running down to a few tenths of a thousandth of an inch must be designed and built by experts. Even with the skilled workmen available, such machines cannot be turned out overnight. Ironically, too, this industry, which makes mass production possible, can seldom employ mass production methods itself. Volume production, to machine tool builders, means putting through five to 50 machines of one size and model at a time. Orders, even in peak periods such as that growing out of the defense program, often do

not warrant building machines in greater quantities.

One reason for that is that most of these machines are designed for special jobs. Large, general purpose machines such as huge boring mills to turn giant engine flywheels and steel mill housings, for example, cannot be built on a volume production basis. Neither can special purpose machines such as that which drills the 129 holes in an auto engine cylinder block at one operation.

Machine tools work much faster today than they did 20 or even ten years ago.

Today 75 mm. shells, for instance, can be roughed out in 38 seconds. During the last war the same operation took 12 minutes. Chips were cut from metal at the rate of two pounds a minute during the last war. They are now cut away at the rate of 25 pounds a minute.

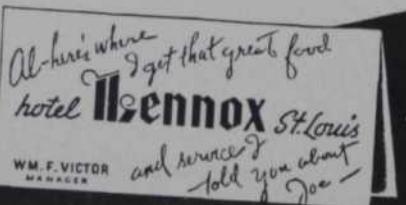
One of the government arsenals reported recently that today's machines are turning out shells six times as rapidly as was the case in the last war.

This kind of progress has been made possible by constant research, development and invention by the machine tool industry. The trend of development in the design and manufacture of machine tools has been toward the use of better materials such as the modern alloy steels, and toward greater weight which helps eliminate vibration. If the machine does not vibrate, of course, the work turned out will be more accurate. Accuracy and speed have both been increased, too, by the development of new cutting materials, called "cemented" carbides. With these cutters which even today have not yet reached their fullest use, machine tools can race through a chunk of steel at the rate of 300 or even 400 feet a minute. On soft metals, such as brass, they can go twice or three times as fast and still do an accurate job. It is possible to shave down a two-inch bar of steel to a diameter of 1.85 inches, as an example, almost 80 times faster today than at the turn of the century.

Obsolescence is rapid

BECAUSE of this rapid development, machine tools seldom actually wear out in service. They become less efficient, of course, but, if properly serviced, most of them would last for many years. Many in service today are more than 25 years old. But improvements generally make them obsolete long before they are worn out. This is particularly true today when the demand is for accuracy and speed.

Generally speaking, a fine, accurate tool room lathe, which has been in use for ten years is no longer suitable for precision work. It might be retired to some other operation where such close tolerances were not necessary or it might be an excellent tool for a garage mechanic whose occasional requirements are not exacting. But it would not be economical to keep it in operation at its original job if a new tool offering faster production, better finish, higher accur-



acy and perhaps greater safety for the operator was available.

So it is unusual for any design of machine tool to remain standard for more than about seven years.

That means that, even in normal times, the machine tools used in American factories are, or ought to be, completely replaced every ten years or so, but very few companies have been able to do so. In the automobile industry the process is called retooling, and is usually expected to take about a year. Sometimes the change is made necessary because of new models of the product. Sometimes it is advisable because new models of machine tools make possible a saving in costs or greater accuracy. In any event, "retooling" involves considerably more than substituting new machine tools for old ones. Generally it involves additions to factories or rerouting of materials and assembly lines, changes in methods of handling as the new machines do old jobs faster, or better or combine in one operation work that formerly took two or three.

Problem of retooling

DESCRIBING the "change-over" from old to new model, the Automobile Manufacturers' Association says:

"In the factory, the atmosphere is tense with anticipation. The last few cars of the old model run are rolling off the assembly line. The purchasing agent and his staff look to the sales department for cues on remaining needs and tighten down to keep from having parts or material left over. The chief engineer and his staff hold their final meetings on the new model, finally the assembly line shuts down.

"But now the plant comes alive with other activity. About one-third of the employees have virtually no let-up in sight. New machinery is installed, dies are brought in to replace the discarded ones and the assembly line and conveyors are rearranged to handle the new product. Many of the machinists, general laborers, tool and die makers, maintenance men, millwrights and many persons transferred from regular assembly jobs, participate in the rearrangements."

If this sort of turmoil marks the birth of a new model of an old product, it is easy to see what must happen when a company skilled and equipped to make automobiles, washing machines or vacuum cleaners suddenly finds itself retooled to make tanks or gun carriages.

On some operations, of course, old machines can be used, but even then schedules frequently must be rearranged. A grinder, or a milling machine, or a lathe that was running off small parts may have to be reset to run off larger, more intricate parts.

A machine built to drill 17 holes at one time in an automobile part cannot be used to drill 19 holes in an aircraft part. And even if the number of holes were the same it would be a rare coincidence if they were located at exactly the same points.

Thus in many cases new machine tools must be acquired—and often they must first be built. Cost of a single machine will range up to \$150,000. Time needed

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may be a month or so, perhaps less, if the machine is one that is already being produced—maybe a year or more if it is a special purpose machine that has to be fashioned piece-by-piece to special order. If this machine is to be used, for instance, in building airplanes, the specifications for one machine may even be changed before it is finished due to changes in airplane design. Changes come rapidly in war and airplane designs change rapidly.

Even after the plant is changed over, the machinery installed and the work ready to start, the problem still remains, "Who is going to run the new machines?"

For themselves, the machine tool makers have been seeking the answer to that question in various ways as answers to a recent survey show:

"Inexperienced men being trained as machine operators are assigned to an experienced operator first as observers, second as helpers, third as operators under direct observation, and then given

a machine where they do simple work under close supervision.

"For several years our company has joined with the high school and other machine tool plants in town in supporting the cooperative course in which, as far as possible, boys so deserving begin in their sophomore year to attend school two out of four weeks and the other two weeks are employed in the various shops.

"We have our regular apprentice four-year course and we have training for machine operators by putting them under the supervision of our own experienced operators as learners for two or three weeks.

"We operated an indentured apprentice training course and . . . in addition to this have trained approximately 150 learners as machine operators in the past year and a half."

The instruction problem of the machine tool makers is not greatly different from that of those who buy their machines because, like other modern ma-

Synthetic rubber in reserve



David N. Goodrich, left, chairman and John L. Collyer, right, president of B. F. Goodrich Co. with Dr. Waldo Semon who is demonstrating a sample of Ameripol, a new synthetic rubber

Mr. Collyer: "If there were a sudden national emergency, the use of crude rubber would be restricted and large amounts of reclaimed rubber employed. These steps would have to be taken to tide us over the period that would be required to establish large capacity for the production of synthetic rubber. Our estimate based upon the experience we have gained in developing and manufacturing our own synthetic rubber, Ameripol, is that from 18 to 24 months would be required for the creating of such a 'standby' for the industry. Our newly equipped plant at Akron now is producing two tons of synthetic rubber a day and will have a capacity of six tons. All this material is being utilized in defense orders. One of the latest developments has been the application of electrically conductive compounds as de-icing equipment for airplanes."

chines, machine tools are made on machine tools.

The American Society of Tool Engineers, through its Educational Committee, has also developed an emergency training program. This plan calls for cooperative activity by government agencies, industry, and educational boards to meet the local labor shortage in any given community.

The Society began its study of the situation as early as 1939 when the demand for skilled men of various kinds already exceeded the supply.

Because of these training methods, those who face the job of turning out defense materials are inclined to be optimistic about labor supply. They point out that, although three or four years are usually required to develop an all-round machinist who can run almost any machine tool, an untrained man with reasonable intelligence and mechanical aptitude can learn to operate one certain type of machine tool satisfactorily within two or three months, if he has a competent supervisor.

One reason for this is that the machine itself actually does the extremely accurate work that is required of it. The operator runs the machine. As an analogy, it is pointed out that a locomotive engineer does not pull a train—the locomotive pulls the train. The engineer runs the engine. This is exactly what happens in the case of a machine tool.

The operator places the piece of metal from which excess is to be removed in the machine. He moves various levers and makes necessary adjustments. The machine does the cutting. It is the operator's job to see that the machine is operated in such a way that the cutting is correctly done.

Expanding employment

IN THE past two years training programs have made it possible to put more than 40,000 new men to work in the machine tool plants of the United States, thereby practically doubling total employment in the industry.

The machine tool industry has proved that industrial production can be swiftly expanded for purposes of national defense, and that new men can be trained to operate machines just as rapidly as those machines can be produced and set up on plant floors ready for operation.

This is extremely reassuring to those who may be worried about the capacity of this country to defend itself because with war mechanized, the factories of the nation constitute the first line of defense.

The men who operate the machines in our industrial plants today are doing a job which compares exactly to that of the men in olden days who built forts and stockades, dug ditches, and erected battlements. They are making what it takes to defend their country.

If the experience of the machine tool industry is a fair criterion the country can rely upon the capacity of American industry to produce, and the ability of American workmen to operate, the increased volume of machines which today are the true measure of total preparedness.

IT FLAUNTED engineering understanding of the law of centrifugal force. But it worked!

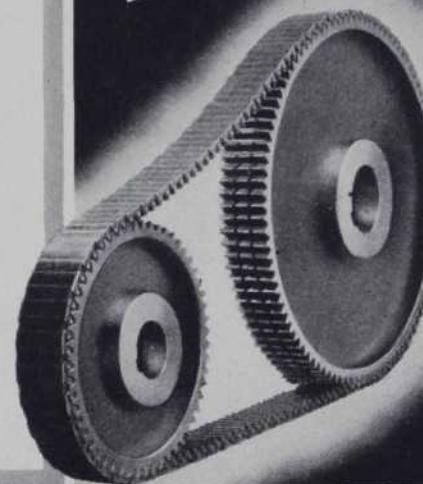
Now the Morse Principle of high speed silent chain drives is accepted in the best engineering circles. By using larger sprockets having more teeth, chain speeds of a-mile-a-minute and more are not only possible, but *profitable*. Centrifugal force, once looked on as a hindrance, is now hailed as a helper!

With Morse high speed silent chain drives, there's no slip, no waste power, no high bearing loads. Chain teeth and sprocket teeth engage even more firmly at high speeds. Power transmitting capacity increases faster than the chain speed increases and chain wear practically vanishes.

Cost of Morse high speed drives is low—lower than other types of drives. More compact, too, and much more efficient. They'll save you money—and make you money!

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the Law!*



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MORSE CHAIN COMPANY ITHACA N.Y. DIVISION BORG-WARNER CORP.



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As one of the 356,480 business men who read Nation's Business, you probably aren't much interested in what type faces appear in the magazine. It's the cold hard business facts that you are after.

You want the latest news in the world of business. You want a keen interpretation of what goes on in Washington. You want information that will keep your general business policy right up to snuff.

So we give you this month eight meaty articles covering a wide range of business problems and nine

special features which you say you like. They are all right down your alley.

Right down your alley, too, is the advertising copy presented in this issue by 75 business concerns. These advertisements offer products and services that will help you meet competition. They can help you cut down operating costs.

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NATION'S BUSINESS
going to 356,480 men—the largest group of business buyers in America



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205 Park Avenue, Shelby, Ohio

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Fire Alarm Service
Sprinkler Alarm Service
Combined if Desired



THE SECRET OF HEALTHY HAIR

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Field Representative, experienced in organizational work, publicity and public relations; familiarity municipal problems and speaking ability desirable; 30-45 yrs.; good education, excellent appearance; regional travel; salary \$5,000. Write full details; replies held in strictest confidence.

Box 15, Nation's Business, 1615 H St. N.W.
Washington, D.C.

An Educator Bids for Partners

(Continued from page 20)

schools make an indispensable contribution to the well-being of the American people.

But, since economic issues bite deeply, the schools experience difficulty in providing realistic teaching of economic problems. The various economic interests in the community watch sharply the efforts of the schools to deal with such questions.

Need for economic education

NEVERTHELESS, it should be clear that, unless the schools in a thoroughly impartial manner are allowed to develop a substantial measure of economic literacy among all our people, there is no hope for the solution of our economic problems within the framework of democratic action.

Since these problems must be solved in one way or another, if we block wise democratic action by withholding the elements of economic literacy from our people, we invite other devices which are not in accordance with the democratic spirit.

A sound program of economic education in the schools will not make youngsters into either hopeless reactionaries or scatter-brained radicals. It will give them a balanced viewpoint with reference to the economic problems of our day and, by teaching the ideals of our American democracy, it will provide them with the moral guides to which economic issues should always be referred.

Business men can help in this task by insisting upon an open-minded and cooperative attitude toward the teaching of economic literacy in the schools and colleges.

A second necessity in our economic life is the proper education of young people to manage their own business problems. Good schools teach young people to save and spend their money wisely. They train them to budget their incomes properly, to save for the future, and to make intelligent use of their credit.

They train young men and women to buy understandingly, weighing carefully standards and values. This training of youth has provided a highly literate and educated population in the United States, constituting the world's greatest consuming market. It has a key value in maintaining American standards of business and of living.

Responsible business men can help the schools, and themselves, by cooperating fully with teachers in training youth to earn, to save, and to spend wisely.

Finally, the schools improve economic well-being by the development of useful skills and work habits. Every able-bodied adult should contribute to the general welfare by useful work for which he is fitted by ability, personality, and training.

No person who is truly educated will regard work as something to be avoided

or despised. Even the youngest children learn in school the necessity for good standards of workmanship and for contributing their efforts to a common cause.

Our secondary schools and colleges seek to give every youth a knowledge of his own abilities, of the requirements for various jobs, and of the opportunities for employment.

The efficiency, success, and happiness of the individual, to say nothing of the national welfare, depend on making a proper choice of a vocation.

It is a fact, demonstrated by many statistical investigations, and indeed by the total experience of the human race, that increasing the amount of effective education will increase the production of goods and services.

Business and industry are wisely placing their leadership in the hands of trained workers, economists, engineers, and executives whose usefulness in many cases reflects substantially the amount and quality of education that they have acquired.

Vocational training should not be merely training in a few specific skills, although there are many cases in which the schools should give such specialized training.

Other extremely important aims of the vocational training program include an understanding of the requirements and necessities of industry, knowledge of the contribution which work makes to human life, and habits of good workmanship.

With such purposes, the entire program of the schools is concerned, and the program of vocational education should be an integral part of that education which is made available to all young people, whatever their occupational future may be.

Having provided this exploration, guidance, and training, the schools need the help of business in bridging the gap between learning and working.

This effort will require active cooperation also from labor and the employment services.

Education is essential

THE prosperity, productivity, and preparedness of the American people depend in the long run upon their education.

Whatever prevents boys and girls from obtaining the education which will enable them to be most productive in the work of the world will also lower the standards of production, the standard of living, and the national income. It is, therefore, clearly to the interest of the business man, both as a business man and as a citizen, to insist that educational opportunities be genuinely free. Poverty, race, or place of residence should not bar any American youth from getting the amount and quality of education which is necessary to make him the most productive and useful worker.

In proportion as business men lend

their support to the maintenance of an adequate, vital educational program, they will be rendering a service to education, to business, and to the American people.

Given a sincere desire to help the schools in their important work and a willingness to become informed concerning educational problems, ways and means of cooperation will readily develop. Cooperation between schools and business need not be developed from scratch.

The Chamber of Commerce of the United States has urged its organization members throughout the country to become better informed concerning educational needs in their communities and to promote local conferences which would develop "a thorough understanding of educational facilities and methods and the changes that should be made upon behalf of the young men and young women who enter crafts, business, agriculture, and the professions."

Cooperation has proved helpful

NUMEROUS illustrations of wholesome local cooperation can be cited. In Richmond, Va., the Chamber of Commerce has recently concluded an excellent analysis of the needs for vocational training which will doubtless serve as a basis for improving vocational education in that city.

In Zanesville, Ohio, the education committee of the Chamber of Commerce has helped to obtain improved instruction in conservation education, municipal government, and community activities.

A study has been made of the school buildings and grounds which has led to a proposal that a new high school be built.

The Cleveland Chamber of Commerce has supported the Board of Education in seeking and obtaining a four-mill levy for the schools, even to the extent of running paid advertising in the local newspapers.

In Davenport, Iowa, the Chamber of Commerce has assisted in a survey of needs for vocational education and has used its magazine to support a school building program.

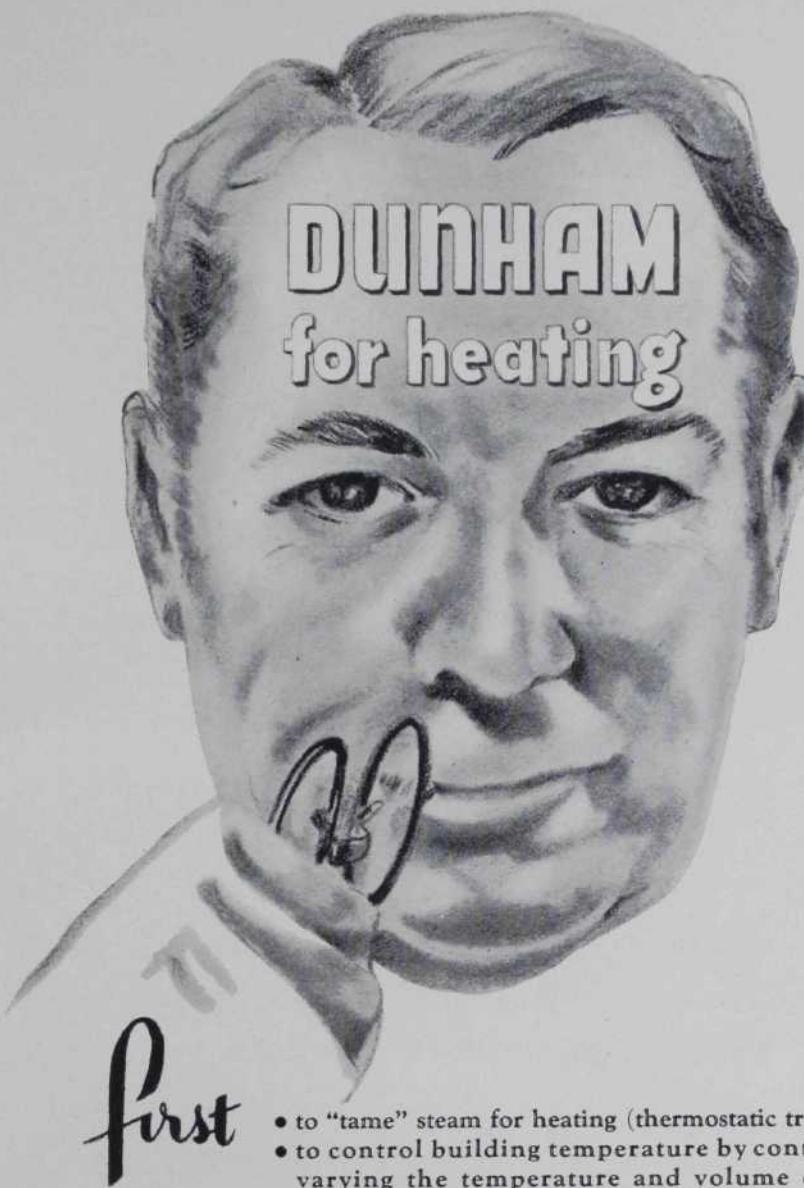
Cordial relationships have existed for many years between the Wilmington, Del., schools and the Wilmington Chamber of Commerce.

It was the Chamber of Commerce which took the lead in marshalling civic opinion for the construction of the new high school and many fruitful contacts in the field of vocational education have been developed, especially during the past five years.

In Baltimore the Association of Commerce has had an effective and appreciative committee to cooperate with the schools for nearly 14 years.

All told, about 360 local Chambers of Commerce have committees which deal with educational matters. When these and other committees help the public schools to provide effective programs of education for intelligent citizenship, economic literacy, the management of personal finances, and productive skill, they render a public service of incalculable value.

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- to "tame" steam for heating (thermostatic trap 1903).
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"Ma Says It Tastes of Coal Oil!"

MA IS probably right. The clerk who had to fit shoes and horse collars, measure out nails and putty, and draw kerosene couldn't always stop to wash his hands before he handled the butter and crackers. And every so often the potato on the spout of the oil can would joggle off.

Today, for most of us, the mixture of food and kerosene odor has ceased to be a problem. More and more of our food, packed by electric machines, comes to us in sanitary containers. Electricity does the work, too, of washboard and carpet beater. Automobiles and good roads have shortened distances to town and work. And because so many of the unpleasant jobs which occupied our parents' time are now only memories, we have more opportunities for enjoying life.

Practically every industry in America has helped to bring about this progress. And every industry, in doing so, has made use of the economies and manufacturing improvements that electricity brings. General Electric scientists, engineers, and workmen have been, for more than 60 years, finding ways for electricity to help raise American living standards—to create More Goods for More People at Less Cost. Today their efforts are helping further to build and strengthen the American way of life.

G-E research and engineering have saved the public from ten to one hundred dollars for every dollar they have earned for General Electric

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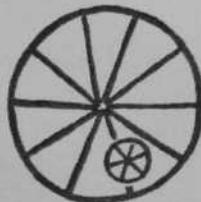
THEY PAY OFF ON
"BOX OFFICE"

EVER hear of show-business making a survey to discover which star gets the most audience attention? Nix! "Props" are O.K. on the stage—but the only index show-business wants is: "HOW MANY PAY AT THE BOX OFFICE?"

More key business men throughout America pay at the box office to read Nation's Business (Admission \$3.00 a year) than subscribe to the next two business magazines combined.

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The Dawn Patrol



A story of day-to-day progress in automotive research

STARS still hang in the frosty sky, but men are already at work. They are busy putting bottles of milk and newspapers and bags of fresh rolls on millions of doorsteps. They are members of the "dawn patrol"—the men who early each morning step on the starting pedals of millions of engines to bring life to the towns and cities of America.

Today no city could exist if it were not nourished by the life stream that flows in its streets. And each improvement in automobiles, trucks and buses benefits the entire city. For example, when the cost of operating trucks can be shaved a fraction of a cent a mile, the savings may be reflected in the prices of canned goods or soap or oranges. Or if a bus company can improve the power output of its engines, Mr. Citizen may get

home five minutes earlier. The improvement of motor transportation is, in effect, a public service—a service that eventually helps everybody, whether he has a car of his own or not.

But such improvement is not a task for the makers of engines, engine parts and materials alone. It is a task that must be shared with those responsible for the development of fuels and lubricants. For the engine and its fuel are inseparably related. Thus, while Ethyl's product, *tetraethyl lead*, is used by oil refiners to raise the anti-knock quality of gasoline, improved gasoline in turn permits the automotive manufacturer to build higher compression, therefore more efficient engines.

Ethyl research workers in Detroit and San Bernardino have joined forces with

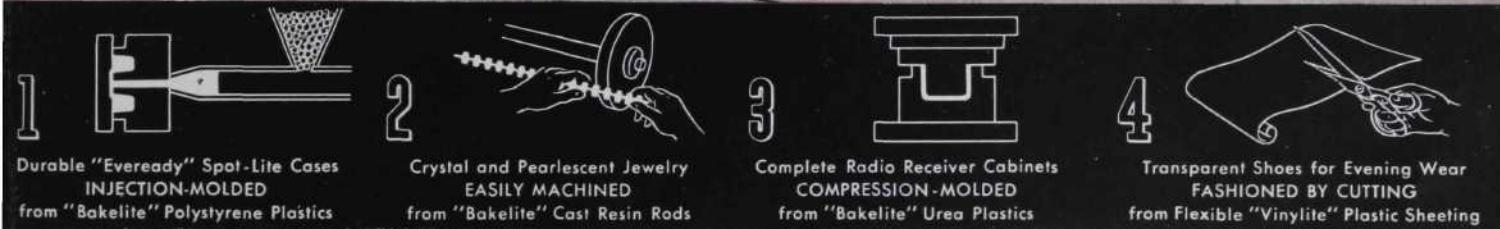
progressive automotive and petroleum engineers in their efforts to make even better automobiles, trucks, buses, tractors, and airplanes.

To technologists in every field of automotive development we extend an invitation to avail themselves of our research and service facilities. And in order that laboratory findings may be more quickly reflected in practical operation, our service engineers will continue to cooperate with commercial users of fuels and engines. Ethyl Gasoline Corporation, Chrysler Building, New York City.



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sheets, tubes and rods for fabrication with standard tools. In still another form, "Vinylite" plastic *flexible sheetings* offer a bright new note in the styling of consumer goods such as women's shoes, men's belts and suspenders.

Booklets 25P, "New Paths to Profits," and 25M, "Bakelite Molding Plastics" present in a brief, non-technical style the further information you will desire in a study of these versatile plastic materials.

The increasing diversity of plastics available from BAKELITE Corporation is being furthered by the funda-

mental plastics developments of Carbide and Carbon Chemicals Corporation and the vast merchandising experience of National Carbon Company, Inc., which companies also are Units of Union Carbide and Carbon Corporation.

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THE SMOKE OF SLOWER-BURNING CAMELS GIVES YOU
EXTRA MILDNESS, EXTRA COOLNESS, EXTRA FLAVOR, AND—

28%

LESS NICOTINE

than the average of the 4 other of the largest-selling cigarettes tested—less than any of them—according to independent scientific tests of the smoke itself



By burning 25% slower

than the average of the 4 other largest-selling brands tested—slower than any of them—Camels also give you a smoking *plus* equal, on the average, to

5 extra smokes per pack!

WHEN you get right down to it, a cigarette is only as flavorful—only as cool—only as mild—as it smokes. The smoke's the thing!

Obvious—yes, but important—all-important because what you get in the smoke of your cigarette depends so much on the way your cigarette burns.

Science has pointed out that Camels are definitely slower-burning (*see left*). That means a smoke with more mildness, more coolness, and more flavor.

Now—Science confirms another important advantage of slower burning... of Camels.

Less nicotine—in the smoke! Less than any of the 4 other largest-selling brands tested—28% less than the average!

Light up a Camel... a s-l-o-w-burning Camel... and smoke out the facts for yourself. The smoke's the thing!

"SMOKING OUT" THE FACTS about nicotine. Experts, chemists analyze the smoke of 5 of the largest-selling brands... find that the smoke of slower-burning Camels contains less nicotine than any of the other brands tested.

R. J. Reynolds Tobacco Company, Winston-Salem, North Carolina

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